ARMIES OF ERIADOR

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"Thence he [Elendil] passed up the River Lhûn, and beyond Ered Luin he established his realm..." (Sil.350)

In ICE's sourcebook Arnor: The People *(A:TP) we learn much about the realm of Arthedain and its institutions. One of the organizations of vital interest is the military, since the threat of Angmar and, to a lesser degree, the other realms and communities of Eriador pose a military threat to Arthedain. Unfortunately, the numbers presented are not sufficient to represent a realm of Arthedain's size and supposed social structure.*

This essay deals with the structure, size, composition, tactics and equipment of the Arthadan army. Its aim is to provide detailed and re-enactable information about all these topics, based on Tolkien's writings, real history resources (see Part V below), other gaming publications and my own imagination. The temporal focus of this essay is the years around TA 1400 (the Second Northern War) and the standard MERP setting of TA 1640.

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Basic Issues

The presentation of Arnor and its successor states in ICE's publications (and in Tolkien's writings, as far as they concern the North-kingdom) justify their classification as primarily feudal societies. As early as Isildur's time, there are Arnorian "knights," as we learn in the story about the disaster on the Gladden Fields.[1] The Arthadan army of the mid-Third Age can therefore be portrayed as similar to a medieval army; that is, a core of knights supported by professional (partly mercenary) soldiers, yeomen and a more or less useful militia.

The necessities of maintaining political and economic control among (relatively) large numbers of indigenous people would have forced the Dúnedain to establish a quasi-feudal system from the very foundation of the Realms-in-Exile (in contrast to Númenor, where all people were of the "enlightened" race). Within this feudal principle there exists ample room for variation and interpretation.[2] For example, the army of early Arnor adhered more to Númenórean practices and traditions with a body of professional soldiers. With the economic decline of Arnor (and later of Arthedain), military responsibilities were increasingly entrusted to local lords and their troops.

An essay on the Eriadorian population levels (available on-line at http://otherhands.com/ and http://www.mordor.ch/tolwen) provides us with some reasonable data from which army strength can be extrapolated. Since Arthedain is portrayed as a feudal state, I use demographic data for feudal states from other RPG supplements in my analysis.[3]

Definitions

The following key terms are used in this essay:

- **Knight**—the prime heavy warrior, who fights either mounted or dismounted, according to the tactical situation (though whenever possible the Dúnedain fight dismounted). The ruling nobility forms the highest caste of knights. Ordinary knights might rise on the social ladder and obtain higher positions and larger fiefs, thereby supplanting older dynasties. The Artatani, Atani and Nóroqueni from A:TP all belong to this knightly class.
- **Man-at-Arms**—a professional soldier employed by a landholder. They are typically used as household or castle guards and may be (landless) knights or non-knights versed in combat and military practice. The latter are given the right to wear chivalric weapons (longsword, lance) by their lord. The Othryn and Ohtari of the royal army are such non-knighted men-at-arms. The Arnaroqueni Vinya as well as the Arnaroqueni Yenwa should be treated as landless knights in the king's service (perhaps second or third sons of lords without hope of inheriting the family estate). The Meithyr and Erroqueni in A:TP also fall in the "men-at-arms" category, as do mercenaries.
- **Manor**—the basic land unit in feudalism, a manor is considered sufficiently profitable to support a knight with his equipment.
- **Militia**—the contingent drawn from a region's commons. Normal farmers pay the same flat rate as yeomen for the rent of their land and a substantially higher amount per acre than the latter, but have no military obligations apart from the general militia muster for the region where the campaign takes place (normally raised only in an emergency). One might call this a kind of "home-guard." The militia is called Díras in A:TP and is supposed to have combat value. This label should be given to the yeomen only, because they are the only class of commoners with real military experience.
- **Yeoman**—a farmer distinguished from the general militia by virtue of the fact that, in return for military service, he pays only a (relatively low) flat rate for his rented land plus a small amount per acre to his lord. Yeomen accompany the fief-holder during his military service, and assist in the policing and defense of his fief. Even if their lord chooses not to serve (see below), yeomen might still be hired directly for a campaign without him. They are usually classified as light or medium infantry with varying equipment (although wealthy yeomen might be portrayed as light cavalry).

Size

When considering the size of the Arthadan army, one quote from Tolkien gives explicit information but poses a major problem too:

> Valandil took up his abode in Annúminas, but his folk were diminished, and of the Númenóreans and of the Men of Eriador there remained now too few to people the land or to maintain all the places that Elendil had built; in Dagorlad, and in Mordor, and upon the Gladden Fields many had fallen. (Sil.356)

A human population is not significantly diminished through a war unless it be fought in the population's home region.[4] Most battle losses are replaced relatively quickly through an increased birthrate (though the slow-multiplying Dúnedain should always suffer dearly from fatalities). Please remember that in a roughly feudal or even patrimonial society with imperial ambitions, only a very small fraction of the population participates in warfare, especially if this takes place in a foreign land (as in the case of Arnorian troops in the War of the Last Alliance). About 20% of the whole population[5] serving as active soldiers in a prolonged campaign would be a very high percentage.

So, even if **all** soldiers were to fall in total and absolute defeat, about 80% of the population would be left intact to recover the losses within a few decades.[6] Even if the victory of the Last Alliance had been pyrrhic (perhaps 50% casualties), only a small percentage (max. 10%) of the whole population would have perished in the war (assuming the women, children and elderly who were left behind could keep the economy and farms running at a subsistence level, which is likely).

As Tolkien tells in *Unfinished Tales*, Isildur had ca. 200 men with him at the Gladden Fields. Nearly all of them fell; but the loss of 200 can hardly be a substantial loss in manpower for a realm of four or five million inhabitants! Therefore, it seems advisable to re-interpret Tolkien's statement as referring to losses among the pure-blooded Dúnadan elite, not the absolute number of men killed.

A reason for this discrepancy might be the fact that Tolkien's visions of what happened at the Gladden Fields changed drastically. In "Of the Rings of Power and the Third Age," we read that the Orcs of the Mountains "descended upon him at unawares in his camp...for he was heedless and set no guard, deeming that all his foes were overthrown (Sil.355-356)." Here it seems as though Isildur was accompanied by a relatively large force, and not merely the 200-strong guard of which we read in UT. Personally, I prefer the UT version, since it is much more detailed.

The following figures concerning population distribution and corresponding military strength are derived from Columbia Games' Hârnmaster supplements *Kanday* and *Kaldor*. Though not necessarily true in the historical sense, they provides very detailed, re-enactable information and demographic data (down to each individual manor!) for a small realm akin to an 11th/12th century feudal state in Europe.[7] Since Kanday's situation is similar to that of Arthedain (having one definitively hostile and one potentially hostile realm upon its borders), its numbers might represent a good model for Arthedain. The following table details the relevant military data of Kaldor and Kanday, together with suggested values for Arthedain.[8] The "relative" entry must be read as "x persons of this type" per "y inhabitants" (e.g., 1 knight in Kaldor per 195 inhabitants).

Country	knights relative	men-at-arms relative	yeomen relative	militia relative
Kaldor	1/195	1/150	1/60	1/5
Kanday	1/170	1/105	1/55	1/5
Arthedain	1/180	1/120	1/50	1/5

All this data is, of course, highly dependent on a number of variable factors such as population density, average fief size, structure of feudal obligations, etc. and may (and will) vary drastically, but for brevity's sake I use these figures in my extrapolation as they are. At least they provide a good measure for the scale we are operating in.

As far as Cardolan is concerned, this realm might possess the greatest population (and therefore the highest military potential), but its fragmentation into semi-independent lordships[9] severely crippled its capacity for united action. Such quarrels might have led to the total disaster of the relative strong Cardolanian army in the 1409 war, from which the centralized, well-disciplined and well-led Arthadan army, though defeated, retreated relatively intact and in good order.[10]

The following table lists population numbers for Arthedain in various periods.[11]

The entries for TA 1640 and 1974 are marked with an asterisk

Time Period	approx Inhabitants	Shire population (Hobbits)	effective population
TA 1400	2.013.000	-	2.013.000
TA 1640*	1.695.000	210.000	1.485.000
TA 1974*	1.200.000	300.000	900.000

because in these times the realm harbors a sizable population of Hobbits that are by nature un-warlike and of little use in specific Arthadan tactics (see Shire.42). Until the demise of the North-kingdom, there always lived ordinary men in the Shire as well, and I propose to take only two thirds (TA 1640) to one third (TA 1974) of the Shire population as basis for calculating military potential. The column to the right—effective population—already incorporates this factor.

Applying the extrapolated numbers from the table above leaves us with the approximate total military strengths displayed in the following table. Several periods of its history demonstrate the development (or, rather, the waning) of Arthedain's military power.

Due to logistical problems, the militia is almost exclusively used in its home region and, accordingly, only a small fraction of the realm's total militia is present at any one battlefield (perhaps a maximum of ca. 5% of the total). Additionally, the loss of militia (and yeomen) weighs doubly heavy, not only because they are missing in case of further hostilities, but because (as farmers) they form the realm's economic base. When a substantial number of these fall in battle (or are slain by raiding Angmareans), the realm's economy as well as its army's fighting strength might be severely crippled.

The second column depicts the number of Dúnedain within Arthedain for each time period covered. If we assume that ca. 20%

ARTHADAN MILITARY POTENTIAL

Time Period	Dúnedain	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	90.400	11.180	16.800	40.260	362.340*	68.240	402.600
TA 1640	50.800	8.250	12.400	29.700	267.300°	50.350	317.650
TA 1974	42.000	5.000	7.500	18.000	162.000*	30.500	192.500

°The yeomen are subtracted from the militia total because both are peasants and cannot be conscripted twice.

of these would be available (and trained!) for military service,[12] there would be enough to fill the knightly class as well as providing a good number of men-at-arms, but not enough to fill the other ranks by far. Therefore, the bulk of the army must be of mixed and/or indigenous descent. The upper echelons of the commanding ranks among all units are nearly always held by pure Dúnedain, of course. In any case, this lack of numbers corresponds well with Tolkien's theme of the waning of the Dúnedain.

However, the above numbers for the army and militia represent only theoretical strengths. In feudal societies, the available campaign army is considerably smaller for a number of reasons:

- A knight/vassal may be unable to heed the call to arms because of short-term external circumstances (injury, accident, sickness, bad weather, etc.).
- For various reasons, a vassal may not want to serve, preferring instead to pay scutage (a legal payment for circumventing military obligations). Scutage is normally used to hire a (smaller) number of mercenaries for the current campaign.[13]
- If a vassal's term of annual service has expired, he may refuse to fight voluntarily or for money. In medieval Europe, for example, a vassal was only obliged to render 40 days of annual military service. Because of this limitation, extended military campaigns were difficult to organize to say the least. It is suggested that Arthadan knights are obliged to perform ca. 100 or more days of military service, due to the strong central authority of the king and the constant threat of Angmar, which would give the king greater strategic flexibility.
- Considerable forces have to be kept in reserve in order to protect the rest of the land and prevent the enemy from devastating it with raids, rendering such forces unavailable for the main campaign army.

The second factor (the scutage option) is of special interest because of its inherent dangers for the central authority (in this case, the Arthadan king). The process known as **sub-infeudation** creates a network of feudal "contracts," among which only the tenants-in-chief are directly responsible to the king.[14] If these chief tenants choose to oppose the king for whatever reason, all their sub-vassals are obliged to follow suit, even against the king.

One way to circumvent the dangers of political splintering inherent to this system is to establish a relative strong force of knights who are responsible not to the local lord but to the king and realm directly.[15] The political map of Arthedain in A:TL leaves enough room for land owned directly by the king (or more specifically, the Line of Isildur), thus avoiding the problems that arise for the king's position when we look at the political map of Cardolan, where the whole country is divided among the great barons and no land is left for the king.

An additional system of land tenure, based on the model of the English shire (a term which Tolkien himself uses), should be posited for Arthedain alongside that of feudal vassalage. In a shire, the king appoints an official (the sheriff) to enforce royal laws. The borders of shires and feudal fiefs often overlapped, so that a shire could extend over several fiefs. This was done intentionally to further check the feudal lords' power.

I propose to model the unified realm of Arnor as a kingdom without a direct oath of allegiance to the king (see Note 15 above), and this might have been one of the factors that led to the realm's fragmentation in TA 861. In the ensuing power vacuum and struggles, the Arthadan king was able to enforce such an oath only upon his own immediate tenants, thereby prevented any further political fragmentation of his remaining territory.[16] Additionally, Amlaith might have introduced the Shire system to Arthedain. In Cardolan and Rhudaur, the lords were able to block these developments greatly and save the lion's share of their old privileges.[17]

In view of this, even with the king's strengthened position, the actual military power of Arthedain would lie far below its theoretical limit. All factors discussed above would lead to a severely diminished military strength for any given battlefield. I would propose that not more than 1/3rd (with an average of only 1/4th) of the theoretical total strength could be assembled for combat in a given army.[18]

In this connection we have to keep in mind one factor: the Dúnedain of Arthedain, fragmented as they were, always united against the external threat of Angmar, especially when Orcs and other creatures of the Shadow were involved. I think the maximum strength of the campaign army could be doubled for a major Angmarean incursion (thus fielding ca. 50% of the realm's military resources in one army). The militia percentage might also be raised to have a greater number of basic fighting men. The rest of the military potential should undertake all the other duties already mentioned.

In the wars with Angmar, Dúnadan kings should be able to raise a substantial field army (even for extended periods). Political scheming of individual lords with the enemy to gain personal advantages such as power, land, money, or anything else (quite common in medieval Europe, especially the Holy Roman Empire) must have been extremely rare, because the Witch-king's express goal was to exterminate **all** Dúnedain in Eriador (not just those who opposed him). The same conditions would not apply to the internal wars among Arthedain, Cardolan, and Rhudaur before the rise of Angmar, where all the political and military tricks and schemes known from history are likely to be used on all sides.

ACTUAL ARTHADAN CAMPAIGN STRENGTH

Time Period	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	2.800	4.200	10.100	7.300	17.100	24.400
TA 1640	2.100	3.100	7.400	5.400	12.600	18.000
TA 1974	1.250	1.900	4.500	3.250	7.650	10.900

We have to remember that feudalism never really worked in real European history (at least not as intended[19]), and western European feudal armies were mostly crude in terms of tactical finesse, centralized leadership and discipline when compared with their Byzantine and Muslim contemporaries.[20] To survive for such a long time against Angmar, the Arthadan army would have to be extremely well-organized and trained to form a (relatively) small but effective fighting force.

In this respect, the Arthadan feudal system might be seen functioning the way feudalism was ideally *supposed* to work, such that the typical Arthadan knight would be sufficiently educated and disciplined to set aside his desire for personal honor and glory in the interests of tactical discipline.[21] This latter factor is of great importance. (An unclear chain of command and quarrels among the great nobles were decisive factors in the humiliating defeats of the French in the Hundred Years War.)

The Arthadan army as presented in A:TP (not counting the militia in the latter publication, which might be interpreted as yeomen) should be seen as the men-at-arms directly available to the king and the great (and lesser) nobles. These household troops are more or less always on duty and can be mobilized at a moment's notice. However, it should take time—perhaps as much as a few weeks—to assemble the full host for a major campaign, such as those of TA 1409 and 1974.

The "normal," small-scale warfare upon Arthedain's borders (e.g., the renewed war in Araphant's time) might resemble more the style of warfare employed by the Teutonic Knights in eastern Europe. The Osprey volume about the Lake Peipus campaign (CAM 46) gives a good picture of medieval winter warfare with a relative low number of total participants.

Composition

As already detailed, the bulk of the soldiery forming the Arthadan army are "Lesser Men," indigenous people who have adopted Dúnadan culture and lifestyle. A few of these might have a degree of Dúnadan blood, but mostly they have no racial connection to the Dúnedain. Nevertheless, they regard themselves as superior to other Men because of their adoption of Dúnadan lifeways. The racial Dúnedain comprise only a minority of the army.

In the wars of the Arnorian successor realms, melee combat among knights, men-at-arms, yeomen, and militia may have proven decisive, because army composition and size were comparable among the opponents (at least between Arthedain and Cardolan). The rise of Angmar saw a shift of the numerical advantage towards Arthedain's enemies.[22] At first (ca. TA 1300-1400) this imbalance may not have been too great, but by the 1409 war at the latest the western armies (including that of Arthedain) were severely outnumbered by their foes. Traditional Dúnadan tactics and troop composition would certainly have changed since the rise of Angmar in order to counter this numerical disadvantage. Perhaps this change might even have taken the form of a revival of older Númenórean tactics. (See discussion of tactics below.)

My solution to the problem is the modeling of the middle and late Arthadan army (ca. TA 1400-1974) partly after that of the English armies in the Hundred Years War.[23] The realms of England and Arthedain do not seem too different for this kind of comparison, not to mention the military advantages. In the Hundred Years War, the English were often outnumbered by the French but nevertheless won three famous major battles (Crécy, Poitiers and Agincourt). Much of the blame for these humiliating defeats must rest with the incompetence of the French leadership, but the composition and tactics of the English army were also of great importance.

The decisive weapon in these engagements was the longbow. In the hand of a skilled archer, this armament had a high rate of fire (ca. 10-12 arrows/minute), superb range and high penetration power at both close range and a distance (at least against lightly or medium armored foes). In essence, it was a prime defensive weapon which, when protected from enemy cavalry attacks (e.g., behind pointed stakes, like at Agincourt), could rain a barrage of arrows into a pre-defined "killing zone." When deployed correctly, large contingents of longbowmen could cripple nearly any attack before it reached melee distance.

Of course, this kind of warfare is most effective when the enemy is relatively undisciplined and acts to the advantage of the bowmen, not recognizing or ignoring the danger (as did the French knights, over-eager for glory on the battlefield). In addition, the longbow is relatively easy to produce and so can be manufactured without overly-specialized knowledge. The only real problem with this weapon is its difficulty in use. It takes many years and constant practice to make a good longbowman, and only these are of value in any serious campaign.

When we return to the Arthadan army, the following prerequisites for the introduction of large archer-contingents are met:

- The Dúnadan realm often has to fight against the numerical odds. The need for an effective, massed, ranged weapon that weakens the enemy before the melee begins is therefore great.
- Large contingents of its enemies, such as Orcs and tribal Easterlings, tend to be not overly disciplined and only lightly armored on the battlefield (at least compared to 14th and 15th century European knights).[24]
- It has sufficient numbers of skilled bowmen to form a powerful archery corps.

This last requisite is extrapolated from Tolkien's statements about the Númenóreans. In *Unfinished Tales*, we read that "… shooting with bows on foot and on horseback was a chief sport and pastime of the Númenóreans. In later days…it was the bows of the Númenóreans that were most greatly feared (UT.170)." Considering the overall conservatism among the Dúnedain, it seems very likely that the Faithful preserved their old military traditions in Middle-earth, as long as these did not contradict their philosophy. Even if we allow for a decline in skill and lore and the slow disappearance of the powerful steel bows (*ibid*),[25] the tradition of skillful archery should have been active even among the indigenous and mixed people of Arthedain who are heavily influenced by the culture of their lords.

During the Second Age, the Númenórean armies made exten-

sive use of massive archer contingents: "…in those days the great cohorts of the King's Archers used bows made of hollow steel… (*ibid*)." Even at the beginning of the Third Age, the archers of the Dúnedain were still feared and highly skilled, as we learn in the essay about the disaster at the Gladden Fields: "They [the Orcs]… kept at a distance out of the range of the dreaded steel-bows of Númenor… (UT.273)." Considering all these facts, it seems very likely that the widespread tradition of archery was preserved in Arthedain (the Dúnadan realm in Eriador with the purest Númenórean tradition).

The use of archers would have greatly enhanced the ability of Arthedain to keep the armies of Angmar at bay.[26] In all battles described by Tolkien where Orcs or Easterlings are present, one gets the impression that their most important and successful tactic was a massive charge at the beginning of the battle to break up enemy ranks and then slaughter the fleeing remnants. It is exactly this kind of tactic that offers a disciplined and trained corps of longbowmen the best chances for successful action.[27] In the case of Arthedain vs. Angmar, the qualitative superiority of equipment and personnel always lay on the side of the Dúnedain, another factor in Arthedain's favor.

In terms of troop composition, then, I would suggest that nearly all yeomen be longbowmen. In essence, this archer is infantry armed with light or medium armor (e.g., a chain shirt) and a sword, axe or large dagger to close with the enemy once he runs out of arrows and his own men-at-arms need assistance in finishing off the enemy. The rest of the yeomen should be footmen similar to the Scottish schiltron pikemen of the late 13th and 14th centuries and the Swiss halberdiers of the 14th/15th centuries to protect the archers (e.g. from enemy cavalry), support the heavy foot soldiers (dismounted knights and men-at-arms) and serve as an anchor for the archer troops during melee action.

The ratio of archers to men-at-arms/knights in the English armies of Crécy, Poitiers and Agincourt was around ca. 3:1 to 5:1 (archers to men-at-arms).[28] For the Arthadan army a ratio of ca. 1.5:1 or 2:1 (archers to melee troops) would justifiably reflect Arthedain's need for a strong offensive coupled with the destructive power of the archers (which are only useful when used *en masse*). The actual ratios of the various troop types would differ, of course, on any given campaign, due to need and availability of individual troop types.

In addition to all these "indigenous Arthadan" troops, mercenaries of various types have to be considered. The number and type of hired soldiers depends largely on the tactical and strategic needs of the campaign and the financial situation of the lord hiring them. Horsemen, serving as light and medium cavalry, are most likely to be hired as mercenaries. A similar extrapolation can also be found in A:TP, according to which the successor kingdoms of Arnor extensively used mercenaries for their internecine wars as well as in the struggle against Angmar. The actual size of these contingents (which could be hired either by the king or by feudal lords) depends greatly on two factors:

- the amount of cash available to the employer
- the number of potential mercenaries available

Mercenaries are included in the men-at-arms numbers tabulated above, since these figures represent the number of soldiers sustainable by an average feudal economy. These hired soldiers would be mostly Northmen from Rhovanion (either direct immigrants or descendants of Northmen who settled in Eriador when the sister kingdoms were in need of military manpower after the split of Arnor in TA 861). In the wars against Angmar these men are of great value, since they are experienced in fighting Angmar's Easterling cavalry and their specific tactics. The amount of foreign mercenaries in the Arthadan army might be around 20-25%. In terms of troop composition, they should be mostly medium cavalry, fighting in their own companies, employed as a whole by the respective lords.

Tactics

All factors mentioned so far more or less concern the defensive capabilities of the Arthadan army. During the conflict with Angmar, the Arthadan army should be capable of mounting a strong defensive, but their inferiority in numbers during major campaigns would force them to seek the initiative: a smaller army can only hope to defeat its opponent if it takes the initiative, thereby dictating the circumstances of a confrontation. Sitting in fortified positions would doom it to be finally overwhelmed. So the ability of Arthedain to react quickly and flexibly to Angmarean incursions is vital for the survival of the realm.

The intelligence-gathering capacity afforded to Arthedain by its possession of the *palantíri*, as well as more mundane methods of spying, means that Angmar rarely enjoys the advantage of surprise.[29] Accordingly, the Dúnedain should nearly always be well-prepared to deploy their forces at the appropriate time. This is an important factor in Arthedain's military success, given the fact that any army takes time to fully mobilize.

If we allow for a great part of Angmar's army to be infantry (and thus, relatively slow),[30] the availability of horses for the majority of the Arthadan army (knights, men-at-arms and yeomen) would allow the latter (with a little luck) to engage smaller contingents of the enemy and gain a local equalization (perhaps even superiority) in numbers.[31] But the main job of the Arthadan army would be to prevent the Angmarean army from devastating everything in Arthedain worth fighting for. So the core of the Arthadan army (knights, men-at-arms and yeomen) should be mounted and rapidly deployable to critical areas.

In one respect, however, Dúnadan knights differed significantly from their medieval European counterparts: they were not inclined to true cavalry warfare:

> The Númenóreans in their own land possessed horses, which they esteemed. But they did not use them in war…. In war they were used only by couriers, and by bodies of light-armed archers (often not of Númenórean race). (UT.278)

Therefore the typical Arthadan knight might use his horse(s) for transportation to the battlefield, but whenever possible would fight on foot. Cavalry would therefore be composed primarily of Northman mercenaries, though it is justifiable that, through a feudalization process and the tactical necessities of a six-century con-

flict with Angmar, the Arthadan knights would come to fight more and more from horseback as the Third Age progressed.

In summary, it may be said that the strategic needs of Arthedain call for a mobile force capable of outmaneuvering the enemy and striking him at the time and location *of the Dúnedain's choosing* (thus making the most of their own forces' particular strengths).[32] Despite the vital importance of Northman cavalry, the Arthadan army is mainly an army of mounted *infantry* using *infantry* tactics.

On the tactical level, Tolkien describes a classic Dúnadan offensive formation: the *ðírnaith* (S. "man-spearhead") was a "…wedge-formation, launched over a short distance against at an enemy massing but not yet arrayed, or against a defensive formation on open ground (UT.282)." The classic defensive formation was the *thangail*, a shield wall used when facing a numerically superior foe (UT.272). Both formations would profit greatly from missile fire, which would surely weaken the enemy's ranks and greatly reduce its ability to withstand the Arthadan counter-attack.

The incorporation of the knightly elite and men-at-arms into the infantry line raises the morale of the yeomen significantly, the latter seeing that their lords won't shy away from the dangers of hand-to-hand combat (lacking a horse with which to flee quickly). The rest of the infantry is formed by the militia pikemen. Longbowmen support both with missile fire and take up their secondary melee weapons to join them when finishing off an enemy.

This infantry mix is supported by the remainder of the knights and men-at-arms as heavy cavalry, which can be used as shock troops for a direct assault on enemy lines, as a guard for the infantry flank, or as a mobile wing which beats the opposing cavalry and then turns and attacks the enemy from the rear (e.g., like Hannibal did at Cannae).

In addition to this heavy cavalry, the light and medium cavalry units of Northman mercenaries can be used as an efficient counter against the Easterling cavalry,[33] as well as for skirmishes, reconnaissance and pursuit missions. The Arthadan commanders tend to use mercenaries for such tasks because it enables the Dúnadan core of the army to remain concentrated and intact for possible action.

The tactical order of an individual battle (e.g., infantry or cavalry attack first, taking a defensive position and wait for the enemy to advance, etc.) depends on the specific situation and is decided by the local commander. Standard offensive tactics against an opposing force might look something like this: A barrage of arrows to soften up the enemy, followed by an attack of heavily armored infantry and/or cavalry. With the enemy broken, archers might leave their positions to help finish off the remnants with their swords, axes, etc. In a tactically opportune moment they might even join the fray when all the enemy's reserves have been committed, and so tip the scales in favor of their own men-at-arms by attacking the enemy's flank or rear. Similarly, the typical defensive position would be on a hill, the archers protected by field fortifications, such as pointed stakes or potholes arrayed to deny enemy cavalry easy access. On the enemy's attack, the archers would pour arrows on them and the weakened foe could then be finished by the own men-at-arms.

Throughout its history Arthedain has fought many campaigns, first against Cardolan and Rhudaur and later against Angmar. The Angmarean campaigns are of the greatest interest to this essay, of course, and a short overview of the Arthadan side in these conflicts follows.

The First Northern War (TA 1356)

At first this war seemed not different from the previous conflicts between the successor kingdoms. Arthedain claimed sovereignty over all of former Arnor, and Rhudaur resisted the claim. War broke out and Arthedain marched to battle against Rhudaur. Because of previous experiences with Rhudaur, an average-sized army seemed more than adequate for the task. To Arthedain's surprise, Rhudaur was supported by the newly-founded Angmar and the Arthadan army suffered a defeat. Even worse, King Argeleb I was slain. Finally, however, Cardolan, which had thus far remained neutral, intervened, and together the two realms held the Weather Hills for ca. 50 years.

The Second Northern War (TA 1409)

From the middle of the 14th century until the eve of the First Northern War, Angmar and Rhudaur campaigned in summer and fall.[34] Arthedain, in alliance with Cardolan, well-prepared and trained for such campaigns, had little trouble repelling them. In 1409, another war seemed to be preparing, but this time an unfortunate surprise awaited the allies: Angmar waged a winter campaign. Arthedain misjudged the enemy's strength and the Witch-king's ability to project his power across Eriador's plains during winter.[35] Accordingly, the Dúnedain sent only an average sized army, which, together with the Cardolanian host, was defeated.

While Angmar's troops pursued Cardolan's shattered forces, the beaten Arthadan troops were able to retreat in relative order. When Angmar later turned again upon Arthedain, the new king, Araphor, had reorganized and reinforced the main army and was able to hold Fornost. Even now it took time to get enough reinforcements, and the situation was still desperate when the fight was decided through the intervention of the Elves of Lindon and Rivendell, attacking Angmar's forces in the rear.[36] Afterwards the army of the Witch-king was annihilated.

The Third Northern War (TA 1851)

In 1851, during the reign of King Araval, Angmar is defeated once more in a major campaign (HoMe XII.195). Again the Witch-king threw his forces against Arthedain in winter,[37] but by now the Dúnedain had plenty of experience with this kind of warfare. Angmarean forces penetrated deep into Arthedain, causing some damage to the land, but most of the inhabitants had fled into fortified places that were not easy to storm. Additionally, many supplies were either destroyed or carried away so that Angmar's troops soon ran low on provisions. With these overstretched supply-lines, Angmar's forces were vulnerable, and a great Arthadan army, again backed by the Elves of Lindon and Rivendell, caught and utterly defeated them. Once more the Arthadan and

Eriadorian countryside was littered with the remains of a beaten Angmarean army.[38]

In terms of numbers, the army at this time might amount roughly an average between the 1640 and 1974 numbers, (e.g., a potential of ca. 40.000 troops w/out militia). On the tactical level, this campaign saw the Dúnedain fully prepared for the enemy. It was both the heyday of their resistance and, in the same instance, the beginning of the rapid decline that resulted in the last war one hundred and twenty-three years later which spelled their doom.

The Fourth Northern War (TA 1974)

The great onslaught of 1974 came as no surprise to the Dúnedain. Decades before this final attack, in the days of King Araphant, the Witch-king had renewed his (minor) campaigns against Arthedain. Though Arthedain now had considerable experience and equipment for winter campaigning, its resources were running critically low. Though not surprised as in 1409, the Dúnedain were in dire straits nonetheless. A number of reasons can help to explain Arthedain's defeat in this war:

- vastly superior numbers on Angmar's side.
- less capable Arthadan subordinate leaders who misinterpreted the tactical situation. (Even among the mostly capable Dúnadan monarchs and ruling elite, not everyone can be a Hannibal or an Alexander.) Arvedui, however, was competent, and through a stout defense of the North Downs he bought many of his people time to escape west.
- the Northmen's defeat in the Wainrider Wars, which robbed Arthedain of its primary source of cavalry experienced in fighting horse-nomads (whom the heavily-armored Arthadan knights were less suited to fighting). The available Northman mercenaries were already employed by Gondor in the Wainrider Wars and were later used by the Gondorian expeditionary corps led by prince Eärnur.
- the Banes of Angmar (A:TL.18). The Bloodeye Ravish would be most important in this context because the disease affected horses and probably led to a critical shortening of the equine population of Arthedain. This, in turn, cost a substantial part of Arthedain's field army its great mobility (probably the yeomen would be affected the most) and, therefore, decisively reduced the Dúnedain's strategic options.

The pivotal passage for my interpretation of the Arthadan tactics in this war is to be found in Appendix A of LotR:

> But King Arvedui held out upon the North Downs until the last, and then fled north with some of his guard; and they escaped by the swiftness of their horses. (RotK.321)

The king's engagement of the Angmarean army with Arthedain's main forces upon the North Downs indicates that, when the final stroke came, Arvedui realized the hopelessness of the situation and decided to buy time for as many people as possible to escape west to Lindon. After his final defeat, he escaped the enemy only barely with a few knights of his guard. With a similar strategy, Fornost was defended to force the Witch-king to use many resources in attacking the strong fortifications of that city. Differing from Arvedui though, the defenders, led by brothers of Crown-prince Aranarth, fell (A:TP.5-6).

In this way, many lives were saved and Arvedui's stand and that of Fornost were not in vain. Though the king finally died in the Bay of Forochel, both of these valiant fights had considerably weakened Angmar's forces, especially the Witch-king's best troops. So the Dúnedain's brave defense enabled the western host to overwhelm Angmar in the spring of the next year. Such noble

Knights
Typical Arms: longsword (macil),* lance, *mace, shortsword (eket), bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves

Men-at-Arms
Typical Arms: longsword (macil),* lance, *mace, shortsword (eket), bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves

Yeomen (archer)
Typical Arms: yew longbow, handaxe, shortsword (eket), dagger
Typical Armor: half helm, chain habergeon or kurbul (hard leather) cuirass with qilt gambeson, kurbul (hard leather) greaves

Yeomen (melee)
Typical Arms: halberd, pike, shortsword (eket), dagger, handaxe
Typical Armor: half helm, chain or scale habergeon or kurbul (hard leather) cuirass with qilt gambeson

Militia
Typical Arms: spear, dagger
Typical Armor: leather tunic or kurbul cuirass

An asterisk (*) designates a "chivalric" weapon reserved for knights. The right to wield these might be granted to non-knights by specific leave of a lord.

and selfless behavior also instilled a strong sense of loyalty on the part of the ordinary people.[39]

Arms and Armor

Despite similarities, there are major differences between the troop types that were taken as model for the Arthadan army (English and Swiss armies of the late Middle Ages; c. 14th to 15th century) and their Endorian counterparts. This is especially true where armor is concerned. In Middle-earth, chainmail always seems to be the best armor available; even the greatest warriors and kings do not have more than a few greaves on their armor.[40] In contrast to this, full plate armor was common for both knights and men-at-arms in 14th and especially 15th century Europe, and it provided excellent protection against nearly all types of weaponry except firearms.

The following table gives an overview of typical arms and armor used by the troops mentioned in this essay. It must be stressed that these are not strict rules and the individual equipment can (and will) vary drastically due to personal wealth, availability of certain pieces of equipment, etc.

Magic

Battle-magic which blasts whole companies away with fire balls, earth disintegrations, etc. is strongly discouraged in a Middle-earth setting. The magic available should be more subtle, supporting troops by offsetting their disadvantages. Nighttime-warfare provides a good example. Since a great part of the Angmarean army is composed of Orcs who operate best at night (where Men clearly are at a disadvantage), magics which offset this handicap would be very useful. Spells that light the battlefield with flares or any other illumination could give the Dúnedain the visibility they need to stand their ground (especially the archers should profit thereby) without introducing too much AD&D-style magic. Such magics seem not too implausible, given Gandalf's statement at the Council of Elrond where he compares the lights of his fight with the Nine Nazgûl at Weathertop to the lights used in the Northern Wars: "…such light and flame cannot have been seen on Weathertop since the war-beacons of old (FotR.346)."

Banners, Heraldry and Traditions

The Arthadan **army** looks back on a long tradition. Since the founding of Arnor and the War of the Last Alliance there must have been insignias to enable effective leadership in battle. These insignias and banners would continue to be employed during the Third Age. King and lords all have their coat of arms, whose devices (or emblems derived from them) would naturally adorn their banners.

The position of standard-bearer would certainly be a position of honor given to a trusted and capable person,[41] normally a member of the leading circle of the army. Since banners are always a rallying point for troops, capturing an enemy's standard might seriously weaken morale. For this reason, the standard-bearer and those around him should be skillful fighters capable of defending themselves and the banner from capture.

A brief description of my vision of the insignias of the king's regular troops follows:

- The Royal Army: The coat of arms for the Royal Army is a black surcoat with the emblem of seven, six-pointed, white stars topped by a white crown.[42] In its make, the royal banner is similar to that made by Arwen for Aragorn (although less elaborate and precious, of course).
- The Citadel Guard: As an elite force, the insignia of the Citadel Guard of Fornost is a black field with seven, six-pointed, white stars topped by a white, stylized fortress.
- The Royal Rangers: The Royal Rangers, though generally used for scouting missions and rarely deployed in a pitched battle, have a standard with the emblem of the *elenrios* on a black background.
- Noble Armies: The exact heraldic emblems of all the noble houses go far beyond the scope of this essay, and I'll leave this to the imagination of another writer.[43]

Other Time Periods

As has already been said, the focus of this essay is the time period between TA 1400 and 1640, which is for most gamers the time most interesting and best supported by MERP supplements. Before that period, the army would contain stronger professional elements and less feudal troops. In contrast to this, the final decades of Arthedain should have seen an abrupt change in military organization. Though the basis and formula for troops is basically the same, tactics differ significantly.

As we have seen before, the Dúnedain themselves were traditionally infantry warriors. Even the knights used horses primarily for transportation to (and from) the battlefield. Cavalry needs were met by mercenaries (mostly Northmen from Rhovanion). When this supply dried up after 1856, the Arthadan knights had to basically re-evaluate their role and changed their tactics to true cavalry warfare (out of need, not by preference). The 1851 campaign must have been the first where this shift of style was felt (the Northmen in Rhovanion are beginning to experience their own domestic problems with the Wainriders at that time). In 1974 we can expect the Arthadan knights to be "true medieval" knights with their associated tactics, strengths and weaknesses.

Steel Bows

The Númenórean steel bow should be a almost devastating weapon. I suggest using it sparsely because of its power and the loss of lore among the Dúnedain in Endor.[44] In my opinion, it should possess ca. 150% the strength (damage) and range of a normal longbow. If you use Hârnmaster,[45] treat a steel bow as if it were two categories higher than usual (e.g., a steel longbow is treated as a strongbow, a heavy steel longbow as a greatbow, etc.), but only one category higher in Strength requirements (e.g., a steel longbow uses the strength requirements of a heavy longbow).

Notes

1. "With Isildur went...his guard of two hundred knights and soldiers (UT.272)."
2. Especially the widespread literacy and "civilized manners" among the Dúnadan knights and nobility were largely unknown in Europe's feudal lords.
3. Especially Columbia Games' kingdom modules were invaluable here. See Part V below.
4. With all the atrocities that war brings upon civilians.
5. This number is comparable to the German war effort in WW2 with all the desperate measures of drafting old and young men (in fact nearly boys).
6. If left undisturbed of course.
7. 12th and 14th/15th century armies in Europe were somewhat different from another but for game purposes they are similar enough in my opinion to be put on the same level.
8. Indeed all feudal realms in Hârn have a comparable population density (see Kanday, Rethem, and Chybisa kingdom modules); their population density is comparable to the number Gunnar gives for medieval western and middle Europe (France, England, Germany).
9. Perhaps comparable to the situation in the Holy Roman Empire where the political fragmentation led to the neutralization of an enormous potential power (considering the extent of the empire).
10. This reminds of the foolish behavior of the French knights at Crécy, Poitiers and Agincourt that led to disaster. For more details on Cardolan's military, see the respective essay.
11. For more detailed population figures, see the essay on Eriadorian urbanization.
12. The rest is composed of women, old men, children and non-military specialists with a high social position (e.g. Mages, Engineers, Physicians etc.)
13. Often, European vassals would neither answer military summons nor pay scutage. It was quite common for a vassal to hold fiefs from different lords. In conflicting situations, they often chose to remain neutral and come to the aid of neither because they felt strong enough to face potential retribution.
14. In the Holy Roman Empire, this sub-infeudation encompassed seven levels of tenants. One can see clearly by this practice that the majority of military manpower was removed from the king's direct lordship.
15. In the Holy Roman Empire, such knights were called *reichsunmittelbar* ("directly responsible to the empire"). The body of knights directly responsible to the emperor was the Reichsritterschaft. Even so, the king (and emperor) were unable to strengthen their authority. In England and France, the crown was able to insert an oath into the feudal contract (the so-called "Ligesse-oath"). This proviso meant that loyalty to the crown had priority over all other feudal obligations.
16. Something very similar is already mentioned in A:TP.70, sect. 5.1.3.
17. See also A:TP.71, sect. 5.2.
18. In medieval Europe, sometimes as many as 2/3rd of all vassal knights refused the call to arms (MAA 50).
19. Because feudalism is based on the loyalty of the vassals. In the real world men are by far not "good" enough to make feudalism work properly. This might be another good example of the extraordinary "good nature" of the faithful Dúnedain that they could make feudalism really work over an extended period of time.
20. Especially the individualistic knights who did not like subordination to tactical discipline. In this connection one might only think of the French knights at Crécy who coveted honor on the battlefield and therefore rode ruthlessly through their own retreating crossbowmen in an attempt to get to the enemy more quickly!
21. Tolkien's essay accompanying "The Homecoming of Beorhtnoth" offers a convenient template for how an ideal vassal ought and ought not to act.
22. During campaigns. In peacetime, Angmar should at best be on a numerical par with Arthedain.
23. Only in tactics and (perhaps) logistics, not equipment. The latter should be very different in Middle-earth from that of 14th/15th century medieval Europe. (See the discussion of Arms and Armor above.)
24. Easterlings should be disciplined but not heavily armored, whereas Orcs are neither.
25. Additionally, the Faithful, benevolent as they were, may have adopted an elitist view of the steel bow, regarding it as a Númenórean heritage not to be shared *en masse* with non-Númenóreans, so that the mass of the people would have had to content themselves with wooden bows.
26. One can read about the three above-mentioned battles in the Hundred Years War to see how a numerical inferior force can defeat a far larger (and well-equipped) army if they are well led and the circumstances are favorable (such as terrain, morale, enemy incompetence, etc.). See MAA 111, 113, 317; WAR 11; especially CAM 9 and 71.
27. Archers would be of little use in darkness (the Orcs preferred time of activity), but all major battles with Orkish armies reported by Tolkien—from the Nirnaeth Arnoediad to the Battle of Pelennor Fields—seem to have taken place at least partly by day, and so the use of great archer contingents on the side of men seems justified. (For nighttime combat, see also the discussion of magic above.)
28. This increased to as much as 10:1 during the final period of the Hundred Years War (MAA 317).
29. At least *strategic* surprise should be rare, as when Angmar surprised Arthedain and Cardolan with a winter campaign in TA 1409, whereas previously it had mounted only summer campaigns (A:TL). *Tactical* surprise, by contrast, is always a possibility. See Tolkien's statements about the 1974 war in "Appendix A" of RotK. Here Arthedain knows quite early that a major Angmarean campaign is being prepared and is therefore able to approach Gondor for aid in advance.
30. Not too unlikely, given Angmar's probably poor soil and unfriendly climate, which preclude the sustained rearing and feeding of large numbers of horses.
31. To this end, the yeomen might be modeled after the English longbowmen in another respect: the latter were at least partly mounted and therefore very mobile. For combat they dismounted and fought exclusively on foot. Given the Númenórean fondness of horses, their tradition of horse-

breeding, and the strategic necessity for mobility such tactics seem quite reasonable.

32. This conclusion is especially pertinent in light of Arthedain's lack of a natural barrier to protect its frontiers (as Gondor had in the Anduin). To minimize losses among the civilian inhabitants of a campaigning area, the latter might retreat into prepared fortified positions (e.g., the local lord's castle) to improve their ability to withstand marauding Angmarean contingents until relieved by their own troops.
33. Here Rhovanic mercenaries would be of high value, as they would be experienced fighting the Easterlings in their homeland.
34. The standard campaigning seasons for a medieval army.
35. CAM 46 offers good insights on a medieval winter campaign in a largely unsettled land (compared to western standards).
36. Arthedain's army was not prepared for winter campaigns (neither logistically nor tactically nor with respect to equipment).
37. Perhaps coordinated with the impending Wainrider attack on Gondor (TA 1856) to prevent either realm from helping the other. These wars caused the Dúnedain to consider the possibility of a single will, intent on destroying the survivors of Númenor. It was not until Araphant's time, however, that this was clearly recognized (RotK.329).
38. After the victory, King Araval tried to take advantage of Angmar's weakness and re-occupy Cardolan (and thus strengthen his own staggering realm), but the terror of the Barrow-wights *and* the evil spirits within the mounds of the rest of Cardolan thwarted this plan (HoMe XII.194, 195).
39. Another factor is a role playing campaign set in this time. The scenario outlined above contains the ingredients for a really epic and tragic campaign. Imagine the desperate, last day's atmosphere in Arthedain once the Angmarean campaign has begun.
40. Even in the case of the fabulously gifted Noldor and Naugrim, there are absolutely no indications in Tolkien's writings that they ever possessed something similar to the elaborate plate armor of the 14th and 15th century.
41. Elrond, for example, served as Gil-galad's standard bearer in the Last Alliance.
42. According to ICE's *Weathertop* supplement, this was the original symbol of the royal Arnorian troops. After TA 861, the crown is supposed to have been omitted, but the rest of the symbol was retained. I think this contrasts with Tolkien's statement that, since Argeleb I (died TA 1356), the kings of Arthedain claimed sovereignty over all of former Arnor. Such a claim is very likely to have been demonstrated through the adoption of appropriate symbols. The old Arnorian military livery would be a good way of advertising this claim. To rationalize both my conclusions and the statement in *Weathertop*, one might take the information in the latter as the practice in Arthedain between TA 861 and ca. TA 1350, whereas after that the old Arnorian insignia were re-introduced for the royal Arthadan troops.
43. Good inspiration on heraldry and coats-of-arms can be found in various publications of the Osprey military series (especially MAA 99) as well as in several Columbia Games modules. Of course, there are hundreds of other publications dealing with the matter. Please look to your local library for an extensive list of titles.
44. Perhaps there could be a small elite contingent with steel bows while the majority uses bows of the stoutest yew. Steel bows might be given as some special reward for excellent marksmanship or bravery on the battlefield.
43. Or my Hârnmaster/Rolemaster crossover rules, the most recent version of which can be found on my webpage at http://www.mordor.ch/tolwen.

PART II: CARDOLAN

The temporal focus of this essay is the time around TA 1400, when Cardolan still was more or less an intact kingdom. This fact makes it much easier to assess the military power of the land through real-world observations. The standard MERP setting of TA 1640 is more complicated, due to the diverse social structures occupying the territory of former Cardolan. Explicit military details such as composition, tactics and strength for this time period must be left to another, even more specialized, essay.

Political Structure

Similar to Arthedain, mid-Third Age Cardolan was probably a largely feudal state.[1] Therefore the various troop types are somewhat similar to the ones mentioned in that essay. But there are two important differences:

- Its yeomanry is under-developed (A:TP.95), and consequently its armies are notoriously short on missile troops.
- Its indigenous royal and baronial armies are primarily composed of non-mounted infantry.[2]

All in all, Cardolan resembles a "real" feudal society better than Arthedain (where feudalism seems to work in "idealized" form).[3] Taking a look at the description of the political schemes of Cardolan as portrayed in A:TL (45f, 56, 61f, 74, 77, 84ff), it is supposed that the whole land is divided among the great lords. There seem to be no tracts of land worth mentioning that are directly ruled by the king. Under such conditions, the power of the Cardolanian monarch would be nearly non-existent, as he would have nearly no source of revenue or manpower to make politics (and war).

Even in the Holy Roman Empire, the monarch could enjoy a relatively strong, influential position, despite the realm's political fragmentation. This was only possible because the ruler had a considerable portion of land under his direct authority.[4] Under the rule of an average or incompetent king (or one who took little interest in the internal affairs, like the famous Frederick II), central authority quickly diminished.[5] Cardolan seems to have been subject to similar vicissitudes, with powerful feudal lords constantly striving with the king for political supremacy.

Therefore, it seems reasonable to grant the Cardolanian monarch substantial landed property. Without such an economic base, every king (not only the weak ones) would be the pawn of the barons, whereas with some profitable property, a strong and skillful

king could suppress the power of the barons at least to some degree. (In times of weak rulers, of course, this development would be reversed.) This property might be scattered all over the land to make things even harder for retaining a strong central authority.

A balancing factor might be the cities, which would generally support the king against the feudal lords.[6] Cities are a prime source of monetary income because they are centers of trade and commerce and therefore most important for the king. Effective control over the cities would provide the king with the necessary funds to pay mercenaries and mount a military force, while in feudalism military power is closely associated with landed property. Together these two factors might enable the king to check the power of the Cardolanian barons.

In essence, the political division of Cardolan (at least in the days of the kings) as presented in A:TL (see above) should be revised to meet the requirements mentioned above.

Troop Types

It is reasonable to suppose that the indigenous, mixed population of Cardolan largely accepted Dúnadan culture, and would therefore be usable for Dúnadan military tactics. The aspects of Cardolanian politics as described in A:TP.71, with powerful local barons barely checked by the king, justify this conclusion. Accordingly, we can expect to find the troop types already described in Part I, but with certain variations:

- **Knights:** In contrast to their Arthadan counterparts, Cardolanian knights and nobility have a greater political autonomy and are obliged to render only 40 days of military service per year (similar to medieval Europe). Additionally, the feudal system of Cardolan should be different from that in Arthedain to create a believable background for the special role of the Raggers. (See below.) Essentially, knights are not as numerous as in Arthedain.
- **Men-at-Arms:** These are nearly identical to those described in Part I. In Cardolan, they consist to a much greater degree of mercenaries whose proportional presence within the men-at-arms is significantly higher than in Arthedain. The prominent Raggers are the most distinctive men-at-arms.
- **Yeomen:** Cardolanian yeomen differ significantly from their Arthadan contemporaries. In Cardolan, yeomen are generally peasants paid as mercenaries (A:TP.95). The yeomanry of Cardolan is not very successful or deeply entrenched in the social and military system, and its last remnants are disbanded in the wake of the Great Plague. In 1400, they form only a small minority within the Cardolanian army.
- **Militia:** The militia in Cardolan are more or less the equal of their comrades in Arthedain, and are regarded as useful only in siege work or other tasks where there is a low chance for heavy combat.

The Raggers

Cardolan's most significant difference from the Arthadan military is found in the institution of the Raggers. These men hold a social status somewhere between those of the Arthadan knight and yeoman. They do not possess the social status of a knight (i.e., petty nobility), though they do field an often greater combat expertise. A:TP defines them in the following way:

> The lesser-blooded offspring of the soldiers of the early Númenórean garrisons and their Eriadorian wives and mistresses were less than welcome in Númenor, so many of these – who nevertheless spoke of themselves as Torfiriath (S. "High Men") – took up their fathers' profession and remained in Cardolan. Over the centuries, they became the primary military class in their lands, the steel heart of the forces of Cardolan. They also adopted the epithet hurled at them by the Daen marauders as a title of honor: Ragh Crann-Sleagha (Du. "Ranks of Pikes"). Raggers, a shortened version of the Dunael phrase, became to be a term in common usage. (A:TP.94)

This description suggests that the Raggers are independent men. The Númenórean colony founded after the middle of the third millennium of the Second Age on the territory of later Cardolan experienced only minimal political interference from the king in Armenelos. Accordingly, the settlers developed a long tradition of federal structures. This tradition produced a class of independent landowners, who later became the Raggers. These landowners possessed up to 1000 acres each. By comparison, a typical knightly Arthadan manor would have ca. 2000-3000 acres, a wealthy yeoman up to 70 acres.

During the Third Age, there were attempts to establish a feudal knightly class like that in Arthedain (with the accompanying mounted equipment), but these had only very limited success because the indigenous Raggers were loath to share their whole land with newcomers. Since these people were at least partly Dúnadan, the Númenóreans refrained from forcing their will upon them. In consequence, a much weaker knightly class developed.[7] In this manner, the Raggers—"petty knights"—became the most important military class in the kingdom of Cardolan.

A relatively small amount of land would be sufficient to support a Ragger since he did not have to maintain warhorses (which are very costly). In terms of social and feudal obligations, there would be basically two types of Raggers: those more or less dependent on their local lord (typically serving him in times of war) and those who are responsible only to the crown (forming the manpower upon which the king relies when the call to arms is issued). The Raggers of a given region are integrated into a unit to facilitate the regular drill exercises needed to form an effective phalanx-style fighting force (thus assuring superior performance on the battlefield).

To give the Raggers a believable status in a feudal society, they must be subject to military obligation like a knight, but with a shorter term of free service (perhaps 20 days). Any service exceeding this would have to be paid by the lord employing them. In this manner, the Cardolanian king around 1400 would conduct a similar strategy of employment as the English kings in the Hundred Years War. This system was called "indenture," meaning that feudal lords were paid for their services like mercenaries.

Composition

As with Arthedain, the majority of Cardolanian soldiery is a mix of Lesser Men who embraced Dúnadan warcraft along with other aspects of the dominant culture. Only the elite knights and feudal lords are composed nearly entirely of racial Dúnedain. As already detailed, the Raggers might be labeled "Lesser Dúnedain."

The typical Cardolanian army is fundamentally infantry-based. The existence of the Raggers, as a warrior elite capable of overcoming nearly every obstacle, prevented the development of a strong cavalry among Cardolan's native troops. During the period of Arnorian unity, this did not pose a problem, since hired mercenaries or other parts of the realm could provide mounted companies. After the North-kingdom's split, the Cardolanian monarchs suddenly found their military forces lacking. The relatively small contingents of the baronial and royal guard companies were no compensation. As is known form real-world history, even the best infantry force cannot survive alone against a more balanced force in a pitched battle on open ground.[8]

The solution of the Cardolanian monarchs was the active recruitment of mounted mercenaries from Rhovanion, some of whom eventually brought their families over the Misty Mountains, settling mostly along Cardolan's northeastern frontier. Settlement was encouraged by the kings through exemption from feudal obligation to local lords. They were, however, eligible for hiring by any employer, whether *hîr* or king.

A quantitative assessment of the mercenary system in Cardolan may be extrapolated from data for medieval Italy.[9] In the mid-14th century (before the Plague of AD 1346), the greatest Italian mercenary companies numbered up to 10,000 men. If we estimate the Italian population at ca. 12 million,[10] a ratio of ca. 1,200 inhabitants per mercenary in a company of that scale emerges. (Mercenaries can only survive in an economic situation adequate to their numbers.) Applying this ratio to population figures for Cardolan, we get the following numbers as a basis from which to work:

Even reckoned on the basis of a mercenary band 10,000 strong, the sizes given in A:TP (set in 1640) are much too low and require enlargement. An average company size of about half of the maximum should be fair. Therefore, the companies in 1400 should average ca. 1,000 strong. It is suggested to have perhaps five companies of this size, one larger (ca. 2,000) and 10-15 smaller ones (ca. 300-500 each). In this way, 10,000-14,500 professional mercenaries would exist in Cardolan—certainly not too many for a population of nearly 2.5 million! This view fits well with the data published in A:TP.95, where we read that Cardolan was "enjoying" fortunate times for mercenary companies for about 350 years before TA 1400.[11] Sizes for 1640-period companies must be adjusted accordingly. I would suggest a total number of no more than 4,000-5,000.

Time Period	Total population	max. mercenary company size
TA 1400	2.434.200	2.000
TA 1640	846.700	700

The militia in the tables provided above may be seen as comprising a good part of the realm's cities. These militia are infantry and would act mostly in a defensive role, while mercenaries and mounted contingents maneuver to deliver the decisive blow to an invader.[12] To this deployment must be added the Dúnadan knights, similar as in Arthedain.

The Navy

In contrast to its sister kingdoms, Cardolan is the sole Eriadorian Dúnadan realm with a coast worth mentioning. Consequently, Cardolan is the only realm with a reasonable need for a navy. In 1400, there are no obvious naval threats: Gondor is friendly and Umbar still controlled by Gondor. Only occasional pirates based in the Bay of Belfalas might pose a problem.

In essence, the Cardolanian navy should not be very big, and the number presented in *Thieves of Tharbad* (6 small galleasses) seems reasonable as the force always on alert in this place. In all, the navy might number around 10-20 ships, stationed in Tharbad, Mistalondë (Sudúri) and Annon Baran.[13] The existence of a navy signals the host-nation's wealth (warships are expensive). Cardolan could meet the expenses of a small fleet quite well.[14]

With the fall of the royal line (1409-1412), no lord of Cardolan cared to maintain the navy and, accordingly, the remaining ships soon were sold or fell into disrepair. Like in the land-bound military reality, Gondor took control of Cardolanian naval duties too.

Other Times

After the war of the Last Alliance and during the period of Arnorian unity (TA 1-861), the Dúnedain seem to have had little need for a large standing military force. There are no conflicts reported for this time. This does not mean that there were none, of course. It merely indicates a lack of *major* conflicts. The rebellion of Mong-Finn in 164-166 provides a model for such limited conflicts.[15] The lack of major conflicts and external threats should lead to a reduction of permanent military forces.[16]

This original limited military slowly developed into a more "realistic," feudal one as the fortunes of Arnor waned and the monetary revenue of its kings and lords gradually shrank. The use of feudal armies became an economical answer to the realm's growing problems. The split of 861 marked the final step in this development. From that time until 1400, the Cardolanian military remained principally unchanged.

After the Second Northern War of 1409 and the ensuing troubles that followed it, a central authority within Cardolan ceased to exist. Consequently, the military figures for the era 1409-1640 represent only a theoretical potential, since no united action within Cardolan would have been possible during this time.

The fall of several Dúnadan principalities, upon whose feudal structure the military figures in this essay are built, poses an acute problem. Saralainn, for example, had a tribal culture whose military was organized on entirely different lines, and must therefore be computed differently from the typical "feudal" model. The Free

Cantons of Faerdor are similarly not especially feudal in structure. In light of these facts, the military figures for 1640 have to be used with care and should be seen more as a guideline for total numbers than as fixed values for troop composition. The exact values of a specific principality must be measured and computed with a view to all the distinctive features of that region (i.e., social system and structure, area of land, population, etc.).[17]

In *The Peoples of Middle-earth*, we learn that King Araval of Arthedain tried to re-settle Cardolan, thereby enlarging his kingdom in the wake of the 1851 campaign. (See below.) This venture was prevented by the Barrow-wights and the evil spirits dwelling in the mounds of the hills of Cardolan. The last chance for a Cardolanian recovery became forfeit.

Size

The overall strength of the Cardolanian army may be extrapolated from the population figures for Cardolan and the military structure of other realms. When we apply the numbers from the essay on Eriadorian urbanization to the whole of Cardolan,[18] we find the following population levels:

Time Period	total population	Hobbits	Dúnedain	effective population
TA 1400	2.434.200	200.000	53.600	2.234.200
TA 1640	846.700	-	9.300	846.700

In order to reflect the underdeveloped Cardolanian yeomanry, a ratio of 1:180 yeoman per inhabitants (instead of 1:60) is assumed. The ratio for knights has been enlarged to reflect two factors: 1) the relative weakness of the Cardolanian knightly class in comparison with that of Arthedain, and 2) the significant amount of land held by Raggers which is not therefore available to knightly manors. The men-at-arms ratio has been decreased to reflect these peculiarities of the Ragger class, and the numbers for 1640 no longer include yeomen, since the last of these are supposed to have disbanded during the Great Plague (A:TL.95).

The table at the bottomk of the page displays the potential numbers for Cardolan in 1400 and 1640. As can be seen from this, the numbers presented in A:TP.94 are in no way sufficient to represent the whole army strength of the realm in 1400, because it is assumed in that module that Cardolan was the strongest successor realm (economically as well as demographically). We read that Cardolan could theoretically muster 5,500 professional warriors (Raggers, and mercenaries) plus militia.

I suggest reinterpreting these numbers not as the theoretical limit but as the (slightly below) average army size that Cardolan used in its campaigns around 1350-1400. In this way, the average strength would be around 1/6th of the theoretical strength and below the average percentage for the Arthadan army (1/4th of its theoretical limit). Please note also that the relatively low number of Dúnedain is not sufficient to make all knights racially Dúnedain.[19] The following table depicts the average size and composition of a Cardolanian army in 1400:

As detailed above, Cardolan might be portrayed as a feudal state where the lords enjoy relatively strong independence from royal authority. Accordingly, the Cardolanian *hírath* should have rights nearly as far-reaching as the king.

In the 1409 war, the Dúnedain are supposed to have been surprised by an Angmarean winter campaign.[20] Their strategy was therefore more stereotypical than was useful (Cardolan supporting Amon Sûl and Arthedain holding the fortress and maneuvering in the open). Angmar was prepared for this strategy, having experienced numerous defeats in this way by the Dúnedain over the past century. The army that Osthir led to battle might have numbered not more than 10,000 warriors plus militia (slightly above average), because neither he nor Argeleb expected the massive numbers then being mobilized by the Witch-king. After the first defeat, Osthir retreated with losses and called for reinforcements. When these arrived, his army could have been even stronger than before (say 20,000 plus militia), but he had no time to array them properly or develop a workable strategy. In addition, he was again surprised on the Barrow-downs (A:TP.27).

The inherent problems of relatively weak central leadership, coupled with an ill-chosen strategy and the Witch-king's explicit primary goal of destroying Cardolan's forces, led to total disaster, in which ca. 80% of the army was slain and another 10-15% was so badly wounded that they were crippled for the rest of their life. The fiasco of this campaign was also the swan song for the Raggers. The loss of so many elite forces broke Cardolan's military backbone, and everything that came after was only a pale shadow of its former power and glory. After this disaster, even the fragile authority of central government in Cardolan ceased to exist (A:TP.28). The *cánotar* was unable to fill the power vacuum, and only a few decades after the war each *hîr* did as he pleased.

ICE's adventure module *Thieves of Tharbad* may be mentioned in this connection, since it focuses on the events immediately after the 1409 war. We read

Country	knights relative	men-at-arms relative	yeomen relative	militia relative
Arthedain	1/180	1/120	1/50	1/5
Cardolan	1/250	1/80	1/180	1/5

CARDOLANIAN MILITARY POTENTIAL

Time Period	Dúnedain	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	53.600	8.940	27.900	12.400	446.840	49.240	496.080
TA 1640	9.300	3.390	10.600	-	169.340	n/a	n/a

that the chancellor strengthened the army in order to preserve order in the realm. This statement gives the impression that Cardolan had a standing "national" army. Such an institution is not, however, appropriate for a feudal state, were armies are only raised for campaign through a call to arms by the monarch or local lord. At other times, each lord or king had only a relatively small body of men-at-arms or household knights to serve as a guard and as professional manpower. The institution of standing armies was an invention of the transition from the Middle Ages to Renaissance, and should be dismissed for Cardolan.[21] The statement should therefore be reinterpreted to mean that the chancellor raised *new* royal troops (whose predecessors had been mostly destroyed in the war, with the exception of Captain Tardegil and his company at Metraith).

Knights
Typical Arms: longsword (macil),* lance, *mace, shortsword (eket), bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves

Raggers
Typical Arms: pike, shortsword (eket), mace
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves, normal (round) shield

Mercenary (cavalry)
Typical Arms: broadsword, thrusting spear, bow
Typical Armor: helm, chain habergeon or kurbul (hard leather) cuirass with qilt gambeson, kurbul (hard leather) greaves, various shields

Mercenary (infantry)
Typical Arms: shortsword, dagger, handaxe, spear, broadsword
Typical Armor: half helm, scale habergeon or kurbul (hard leather) cuirass with qilt gambeson or leather tunic

Militia
Typical Arms: spear, dagger
Typical Armor: leather tunic or kurbul cuirass

An asterisk (*) designates a "chivalric" weapon reserved for knights. The right to wield these might be granted to non-knights by specific leave of a lord.

Tactics

The tactics employed by the Cardolanian armies are essentially designed to enable the Raggers to make the decisive blow. The importance and weight of this elite infantry dominated the tactics of the whole army. In this manner, the Raggers may be modeled on the Swiss pikemen of the late 14th century and the famous Macedonian phalangists. The basic technique employed by Cardolanian armies consisted of protecting the flanks of the Ragger phalanx while the pikemen advanced and sought to break the enemy.[22]

The fighting style of the Raggers demanded tremendous discipline and training in their phalanx formation. A senior Ragger or the local lord held the responsibility for the rigorous training of these men. The phalanx was organized into units of 256 men (16 deep x 16 wide).[23] As the situation warrants, this formation can be lessened to only 8 ranks depth and a corresponding widening of the front.[24]

All other Cardolanian field formations are designed to support the Raggers. The mercenary infantry and cavalry forces cover the flanks while the militia performs auxiliary duties (such as guarding the baggage train).

Arms and Armor

The primary weapon of this formation is a 5-6m pike. The pikes of the first four or five ranks jut out in front of the line, forming an impressive wall of steel spearheads. The rear ranks hold their pikes aloft at an angle (ca. 30-60º) to give a bit protection against enemy missiles and to be ready to lower them, should men of the preceding rank fall. The pike is held in both hands, while the shield is held by the left arm, passed through two loops. The shield is further secured by a loose strap on the neck. To increase their protection, the Raggers wear heavy armor. All these factors form an impressive and nearly unstoppable formation of steel-covered spearheads.[25]

One problem regarding equipment persists. In real history, an opponent's tactical advantage (qualitative or otherwise) provides an occasion for his attacker to devise new tactics and/or equipment to offset that advantage. Such development is always apparent in a long conflict.

The Hundred Years War is an excellent example: the French army still upheld the ideals of chivalry and knightly warfare, whereas the English had adopted more modern tactics with a large contingent of peasant bowmen, winning several spectacular battles against the French. In the war's closing years, the French adopted

ACTUAL CARDOLANIAN CAMPAIGN STRENGTH

Time Period	Dúnedain	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	**53.600**	**1.490**	**4.650**	**2.100**	**6.700**	**8.240**	**14.940**
TA 1640	9.300	565	1.800	-	2.540	n/a	n/a

new tactics and defeated the English, who clung to their now outdated style of warfare.

Such a dynamic seems to be largely absent in Middle-earth. One might only think of the many millennia where chainmail was the epitome of armor. Even the most talented craftsmen in Middle-earth (the Noldor and Naugrim) never contrived anything better than mail. From the battles of *The Silmarillion* to those described in *The Hobbit* and *The Lord of the Rings*, the Dwarves wear chainmail. Given the wide variety of weapons which easily overcome chain's protection (e.g., blunt weapons like maces), the lack of military development in this area is very hard to rationalize.[26]

Important Campaigns

For purposes of role playing in royal Cardolan, the decades between 1350 and 1410 offer the greatest possibilities. They encompass two major wars and a number of smaller campaigns, presenting excellent opportunities for gaming. Conflicts always need the services of freelance-adventurers for a number of missions. The two major campaigns and an exemplary (generic) smaller one are described briefly below.

The First Northern War (TA 1356)

This conflict begins as a war between Arthedain and Rhudaur, and is officially recorded as lasting from 1352 to 1359 (A:TP.38). Argeleb I of Arthedain claimed the high kingship of Arnor. Minaglar, the Cardolanian monarch accepted the claim (knowing this to be an empty title) while Rhudaur refused it. Arthedain mustered a host and marched into Rhudaur to compel recognition with an army more than adequate to subdue the standard Rhudaurian forces. Argeleb was surprised, however, by a secret alliance of Rhudaur with the new realm of Angmar.

A battle was fought, in which Argeleb was forced to retreat in disorder and his beaten army forced out of Rhudaur. On its retreat, the army was pursued by the victorious forces and the Arthadan troops barely reached the security of Amon Sûl. Until now, Cardolan had remained neutral but held a considerable force ready on the South Downs. When news of Argeleb's defeat reached the army, Minaglar marched northward to the aid of Arthedain.

Minaglar's decision was based partly on his oath of fealty to the "High King" and his personal dislike for the Rhudaurian monarch. Whatever the cause, he arrived at the battlefield to find the Arthadan army caught in dire straits by the Rhudaurians and Angmareans at Weathertop, where Argeleb fell in a sortie against the besieging forces. The Cardolandrim immediately attacked the enemy in the rear, resulting in a complete rout for Angmar and Rhudaur. After the battle, relations between Arthedain and Cardolan improved and together they fortified their respective frontiers against Rhudaur.

The Second Northern War (TA 1409)

As already pointed out in Part I, the Dúnedain did not anticipate a winter campaign when they first learned of Angmar and Rhudaur's preparations for war. The Cardolandrim were surprised when news of an Angmarean host reached them. In all haste, King Osthir of Cardolan raised an army and marched to Amon Sûl. There he and Arveleg of Arthedain quickly adopted a strategy by which the Cardolandrim would support the Arthadan-held fortress while Arthedain outflanked the enemy.

Unfortunately, the combined strength of the Angmarean army with its Rhudaurian allies was far greater than expected and they struck before the Dúnedain could deploy according to their plans (A:TP.27). Osthir was defeated and driven into the Barrow-downs, where he and his army were finally overwhelmed and annihilated by an unexpected forced march by the pursuing enemy. On that day, 80% of the Cardolanian army fell on the field, the rest being wounded, captured or routed.

The Third Northern War (TA 1851)

Though there are no records of any Cardolanian participation in this conflict (probably due to a lack of noteworthy organized dominions within the territory of former Cardolan), it is of interest for the land since king Araval of Arthedain tried to resettle it. This enterprise failed because of the terror of the wights upon the Barrow-downs and the mounds of Cardolan.

Notes

1. For the argumentation underlying this assertion, see the discussion of Arthedain on p. xx above.
2. For cavalry support, they rely (like Arthedain) on mostly Northman mercenaries.
3. In other words, Cardolan experiences a more "normal" historical development (i.e., political fragmentation, insubordination of feudal lords etc.), whereas Arthedain remains politically unified throughout its entire history. For a discussion of Arthedain's "ideal" feudalism, see p. xx above.
4. The emperor's power was largely based on the land owned by his family (*Hausgut*) and the empire's estates (*Reichsgut*) and in early times (until late-11th century) estates of the church. A good description of the military organization of medieval Germany can be found in *German Medieval Armies 1000-1300*.
5. Especially after the death of Frederick I in 1190, central authority began to deteriorate rapidly.
6. For a list of cities located in royal territory, see my on-line essay on Eriadorian urbanization.
7. The Númenóreans had less scruple with "Lesser Men," as may be seen in their brutal and ruthless persecution of the Gwathuirim when the latter defended themselves against the extreme woodcutting by the Númenóreans in Minhiriath and Enedhwaith during the Second Age.
8. As can be seen from the disaster of the once-mighty Macedonian phalanx, when the Romans defeated the successors of Alexander's elite infantry at Cynoscephalae and finally at Pydna because the Macedonians lacked adequate cavalry support to cover the flanks of the pikemen. Confined terrain (such as a pass) is another matter, of course. Here a pure infantry force can be superior indeed.
9. Although numbers from medieval sources have to be taken with care, they provide us with an impression of the scale we are working with.
10. According to WAR 25.

11. A good description of a land used to mercenary warfare can be found in *Italian Medieval Armies 1300-1500*. It gives a good overview of mercenary habits in a land divided into many lordships. In this respect, many ideas for Cardolan can be taken from this model of medieval Italy.
12. This idea stems from medieval Italy too, where, in the 13th and 14th centuries, city militias played an important role in warfare.
13. With about 1/3rd unavailable, due to repair, refit or reconstruction. In *Thieves of Tharbad*.10, it is said that four ships are stationed in Talsir, though it remains unclear where this settlement should be located.
14. Refer to OH 14.14-19 for a listing of reasonable ship-types. In addition to this, galleys should be used in coastal waters and (smaller ones) on the rivers.
15. An ICE creation.
16. This conclusion is justified by the following reasoning: In contrast to imperial Gondor (and quite uncharacteristically for a human realm), Arnor has no territorial goals beyond its original borders and lacks any hostile neighbors, thus limiting the need for an extensive professional soldiery. A:TP portrays the Arnorian Dúnedain as being more faithful to Númenórean ideals (e.g., peacefulness and a "spiritual" outlook) than their Gondorian brethren. An underdeveloped military would be a likely effect of such cultural mores. The original Númenóreans seem to have ordered their lives on a tribal, not a feudal, basis. Only later did they develop imperial ambitions (and probably a professional military, like the early imperial Roman army). The early Arnorian military may be understood in this manner. The Dúnedain developed feudal institutions so that they—as an ethnic minority—might maintain political control over the masses of Lesser Men within their realms. Even so, the military can still be a relative small professional force funded by the king and nobles.
17. The military potentials of tribal Saralainn and Faerdor deserve special attention and should be addressed in separate essays.
18. As in Part I, a substantial number of unmartial Hobbits live within the boundaries of Cardolan in 1400. These must be ignored when computing the realm's military power.
19. Assuming that up to 10% of the population were available for constant military service.
20. See p. 16 above.
21. As in France during the final phase of the Hundred Years War.
22. By contrast, under Alexander the Great, it was the Macedonian cavalry that always had the most important position and landed the decisive blow (e.g., by routing enemy cavalry and sending Darius III fleeing). Here the phalanx held the main body of the enemy until Alexander had secured the flanks and then came to the aid of his phalangists. The later lack of cavalry was the main reason of the Macedonian defeat at the hands of the Romans.
23. These numbers make it clear that a phalanx-style formation is only effective when there are sufficient numbers of soldiers available. A phalanx of 20 or 30m width is ridiculous on open ground and quite ineffective, except in very limited areas (such as a mountain pass). Therefore, the Ragh Crann-Sleagha company of 1640 in *A:TP* seems a bit strange. In my opinion, they have to give up their traditional formation to be effective when the numbers from A:TP are retained. Another option would be to make them more numerous, say 200-300 pikemen. As above, the only sensible use for their classic formation would be integration into other disciplined units which cover their flanks (but this seems improbable in face of the writings in A:TP).
24. See Part V below for more detailed information on phalanx-style warfare (especially *The Greek Armies* and MAA 94).
25. This image of a Ragger formation borrows heavily from the organization of the Macedonian phalanx.
26. The only (quite unsatisfactory) solution is to explain this with a "magical" factor that limits technological advance. On the other hand, Mannish (as well as Dwarven and Elven) minds seem not so hindered in other areas (e.g., the development of Númenor from a relative peaceful tribal culture to an imperialistic worldwide superpower). The problem remains unsolved. If you have a good idea for a convincing rationalization of this phenomenon, I'd be happy to hear it.

PART III: RHUDAUR

In contrast to Arthedain and even Cardolan, the realm of Rhudaur is described very poorly by Tolkien. The wide gaps have been filled by ICE, and this essay aims to bridge these publications with Tolkien's writing, coupled with real-world experiences and sources.

In this essay, the periods of TA 1400 and 1640 have been chosen as the temporal focus. In this way, the data presented will be usable for gamers playing either in the period just before the Second Northern War or the standard MERP setting of 1640. The 1400 period is also an important period for Rhudaur, because the last Dúnedain are supposed to have been expelled from the land at that time.

The "Hillman Problem"

In MERP, the Hillmen are known as the Ne-Dreubhan (Bl. "Nine Tribes") and as the Endolwaith ("Middle Hills Folk"). Their depiction as a hunter-gatherer society is unfortunately in conflict with Tolkien's depiction of the Men of Rhudaur as a people who built towers and castles (FotR.214). Such activities are more likely to be found among a settled people with a certain degree of civilization (whatever the Dúnedain might say about that) and a logistic capability for building extensive stone structures.

Additionally, the widespread use of evil magics is documented by Tolkien himself in *The Peoples of Middle-earth*: "In Rhudaur an evil folk, workers of sorcery, subjects of Angmar, slay the remnants of the Dúnedain [in TA 1409] and build dark forts in the hills (HoMe XII.194)." Such sorcery is likely to include mind-

bending and illusionary spells, as well as spells of power and destruction. The first two are useful in spying out an enemy's plans and neutralizing its leaders, thereby gaining advantage in battle as well as displaying power to one's own people by intimidating potential rivals.[1] Such "refined" sorcery is more likely to be developed and taught in a civilized culture than in a "barbaric," tribal community. By 1640, however, the situation had changed, as "civilization" in Rhudaur steadily declined and the more "barbarous" ethnic elements came to lead the society. This does not prevent some nasty sorcerers from harassing the Dúnedain, though.[2]

To rationalize the ICE canon while staying true to Tolkien, I suggest interpreting the Hillmen that built the "Dark Towers" and worked evil sorcery as a mix of "urbanized" Hillmen and some Eriadorians, while ICE's "Hillmen" are the "true" Hillmen that uphold the old ways of their culture. For the Dúnedain, the differences among all these groups would be blurred and unclear (especially if the leaders were indeed "true" Hillmen), so that all who expelled the Dúnedain from Rhudaur would be labeled as "Hillmen."

Definitions

The terms of knight, man-at-arms, yeoman and militia are already explained in the essays about the Arthadan and Cardolanian armies and need not to be repeated here.

Ethnic Composition

The ethnic composition of Rhudaur is quite different from that of Arthedain and Cardolan. The rugged and rough landscape and cool climate never attracted many settlers and, therefore, the country has a relatively low population density. The following table lists the racial breakdown in Rhudaur for 1200, 1400 and 1640.[3]

The formula in the essay on Eriadorian population used for computing the population of the Hillmen operates on the following assumptions concerning Rhudaur's geography: 40% wilderness, 20% waste, 90% yield, and a density of ca. 5 inhabitants/km^2. The population of the highlands remains relatively stable until 1400, after which time the climate worsens considerably (RotK.321), so that even the hardy Hillmen would decline in numbers. In a normal population pyramid, ca. 55% of all people fall within the range of 16-55 years of age (e.g. able-bodied). If we assume that roughly 1/2 of all able-bodied males and females (evenly distributed) belong to the *∂hier* (hunter-warrior) class, the Hillmen would have a military potential of ca. 12,500 in TA 1400.

Time Period	"True" Hillmen	Daen-folk	"Urbanized" Hillmen	Dúnedain
TA 1200	55.000	220.000	107.800	8.000
TA 1400	50.000	200.000	98.000	4.000
TA 1640	45.000	150.300	22.300	-

A:TP.51-53 describes the Hillmen as a nomadic people, disorganized beyond the tribal level and ill-equipped compared to the Dúnedain or even the Daen-folk and Eriadorians. This decentralized hunter-gatherer lifestyle and their traditional independence prevents the growth of strong central power. Therefore, it seems reasonable that even a powerful *targ-arm* (Bl. "high chief") could raise no more than perhaps 4,000-5,000 men for campaigning, and then only under dire circumstances, such as defending the land against invaders.

Map Note: The shaded area denotes a rough outline of the traditional highland home of the Hillmen, an area amounting to ca. 23,600 km^2. The lowlands of Rhudaur comprise the No-Man's Lands, the Angle, the Ettenmoors and the Mitheithel river valley. It is here that the Dúnedain mostly built their settlements (especially within the river valleys). It also contains the mass of Rhudaur's Daen-folk (the realm's largest population group)

Much of the history of the Hillmen in A:TP.25-26 makes it clear that they mostly stayed in the highlands in a state of half-autonomy. They were not normally very fond of the Dúnedain and generally remained aloof from their internecine wars against Arthedain and Cardolan. In A:TP.96, we also learn that the Hillmen practice a highly ritualized style of warfare amongst themselves, reserving ambush and guerilla tactics for outsiders who do not follow their martial code.

In essence, even if a Rhudaurian king were able to gain the support of the Hillmen, they could only be used as irregulars for ambushes, scouting operations and skirmishes. They would be nearly useless in a pitched battle. In spite of this, the Dúnadan lords of early Rhudaur needed the compliance of the Hillmen in order to effectively exploit the mountain mines.[4] In this manner, a relatively small tribal group had a great impact on Rhudaurian warfare and politics.

RHUDAURIAN ARMY STRENGTH (potential)

Time Period	Knights	Men-at-Arms	Yeomen	Militia	Daen warriors	Hillmen warriors	Total w/out militia & tribes	Total w/ militia & tribes
TA 1200	540	720	1.800	19.760	77.000	13.250	3.060	113.070
TA 1400	510	680	1.700	18.700	70.000	12.500	2.890	100.790
TA 1640	110	150	370	4.130	52.600	11.250	630	66.110

Though subject to the Dúnadan king, the tactical value of the lowland Daen-folk in a prolonged campaign is questionable. Their military organization is based on a warrior code which does not emphasize steadfastness or discipline. Like that of the Hillmen, Daen culture is characterized by tribal life and warfare, not a feudal organization. Their normal tactic is a massive charge at the onset of battle, usually in superior numbers. If this fails, their morale quickly crumbles and they tend to flee before a determined, well-disciplined and organized foe.

Roughly 35% of the population might be eligible for military duty.[5] This figure assumes a full mobilization, though, and a reasonably percentage for average campaigning (e.g., warriors in a narrower sense) might not reach more than 5%. Particularly powerful kings and chieftains might raise more (ca. 10% or 15%), but this is a rare occurrence in Rhudaur.

The "civilized Hillmen" and Dúnedain form the core of the Rhudaurian army. The latter resemble their more numerous cousins in Arthedain and Rhudaur, while the civilized Hillmen take the role of the Eriadorians and, consequently, a similar breakdown for military strength in a feudal society may be assumed for them.

The Dúnedain of Rhudaur, despite forming a large ethnic group in the realm, are not very numerous compared to their cousins in Arthedain and Cardolan. Additionally, as detailed in A:TP.25, many of the initial Dúnadan settlers in Rhudaur were not the best among their race, more prone to moral corruption and loss of their Dúnadan cultural heritage.[6] In military terms, this might include the adoption of true cavalry warfare,[7] as distinct from the Dúnadan tradition of mounted infantry.[8]

As we see from the population numbers, the racial Dúnedain are probably not numerous enough to fill the knightly class alone (not to speak of the men-at-arms). Consequently, a great deal of high-ranking social and military positions are manned by non-Dúnedain.[9]

Size

The ethnic composition of the Rhudaurian army should mirror the diversity of the realm. The first table lists the relative numbers for feudalized regions as well as Daen tribal communities,[10] while the second displays the absolute numbers of the army for 1400 and 1640:[11]

The next table gives an overview of typical Rhudaurian army strengths during the periods discussed. One can see that the number of available warriors is relatively small as compared with those of Cardolan or Arthedain, taking into account the fact that only about 1/4th of the potential (professional) strength is available during an average campaign.[12] For a normal campaign, ca. 5% of the total militia is raised (much more than in Arthedain or Cardolan, due to sheer necessity). In more dire circumstances, double or even triple that number might be assembled (usually only in case of an invasion). To this might be added roughly 1/5th of the Daen tribes' military potential and 1/6th to ½ of the Hillman warriors.[13]

Country	knights ratio	men-at-arms ratio	yeomen ratio	militia ratio	tribes ratio
Arthedain	1/180	1/120	1/50	1/5	n/a
Rhudaur	1/200	1/150	1/60	1/5	1/3 & 1/2

The numbers for 1640 differ from those of previous times. The dramatically shrunken population limits the "feudal" population to a core area of the realm subject to much more direct royal control. Therefore about half of the professional military potential should be available for the average campaign, and nearly 100% for an emergency. The militia percentage might be significantly higher too, perhaps around 10%. The disciplinary problems with the Daen and Hillman tribes persist, though, and so the ratios for these remain unchanged.

These numbers (all of which are based on landed property and productivity) show that the reliable military potential sustainable by Rhudaur's agrarian society is in no way sufficient to seriously contest Arthedain or Cardolan, not to speak of both combined. In spite of this, Tolkien states that "There was often strife between the kingdoms, which hastened the waning of the Dúnedain (RotK.320)." This implies that Rhudaur could seriously contest the Cardolanian or Arthadan army. Even if we add the tribal contingents of Daen-folk and Hillmen, Rhudaur (around 1200, the heyday of the strife among the sister-kingdoms) could not hope to

RHUDAURIAN CAMPAIGN ARMY STRENGTH (average)

Time Period	Knights	Men-at-Arms	Yeomen	Militia	Daen warriors	Hillmen warriors	Total w/out militia & tribes	Total w/ militia & tribes
TA 1200	135	180	450	1.000	11.000	3.300	765	15.065
TA 1400	130	170	425	935	10.000	3.000	725	13.725
TA 1640	55	75	185	410	7.500	2.800	315	10.615

raise more than ca. 15,000 men for a standard campaign, most of whom would be of very limited value against armies organized on predominantly Dúnadan cultural lines.[14]

Mercenaries

The problem of sparse manpower may be solved by positing the existence of some profitable mines (probably of silver and some gold) in the Misty Mountains adjoining Rhudaur. These would supply the Rhudaurian king and lords with a substantial amount of money, with which they could hire mercenaries not otherwise supportable by estate revenues. Of course, the mere ability to hire mercenaries does not obviate the problem of provisioning them. This means that Rhudaur's lords must always have adequate time to amass and store supplies before a campaign may be undertaken.

In my opinion, these mines should be profitable enough to hire 3,000-5,000 mercenaries for a specific campaign (distributed among the king and nobles). This would boost the Rhudaurian army in TA 1200 to about 5,500 useful warriors, giving Rhudaur's rulers much more say in squabbles with Arthedain and Cardolan, without making the Land of the East Wood too powerful. Only the income of the mines enables the king to actively pursue military goals beyond his own borders. Even in 1400, such mercenaries would have a significant impact on Rhudaurian military performance.

The introduction of these mines therefore serves several purposes:

- They provide the Rhudaurian kings with money to hire a substantial number of mercenaries.
- Their location in the mountains and highlands gives the Hillmen much political weight in domestic policies of Rhudaur (more than is justifiable by their numbers or military prowess). Alienating the Hillmen could easily and painfully disturb the flow of revenues from the mines (e.g., through ambushes).
- They make Rhudaur a prime target for the Witch-king, since his campaigning strategy also relies heavily upon paid mercenaries.[15] To make things easier for the Nazgûl-lord, Rhudaur is also the weakest of the Arnorian successor states and the one nearest to his own realm.

Before Rhudaur's incorporation into the Angmarean fold, these mercenaries are most likely to have been recruited from among the Northmen of Rhovanion. Rhudaur, lying near the mountains, offered easy access to the High Pass into Wilderland and, thus, the best corridor through which to quickly bring mercenaries into the land. After the rise of Angmar, most of these Northmen would have been gradually replaced by Easterlings and Orcs.[16]

Composition

As detailed above, the Rhudaurian army is composed mainly of two types of forces: feudal troops from the king and lords (Dúnadan or otherwise) and tribal contingents of the Hillmen, Daen-folk and Northmen (as described above). The Hillmen are generally only usable in their homeland, while Daen warriors are too unreliable for serious and prolonged campaigning. Similarly, the Daen are only usable when arrayed in a superior tactical position or for duties such as looting, ravaging the countryside, mopping up a battlefield, etc.

In terms of troop types, the Rhudaurian army is characterized by melee units. Neither the great contingents of Arthadan longbowmen nor the professional Raggers of Cardolan are to be found here. So, the feudal Rhudaurian army is more or less organized like a classical medieval European army. To this must be added Hillman spear-throwing contingents and Daen with their (quite ineffective) throwing club, the *weeb*.

In terms of racial composition, the core of the feudal army is composed of men whose battlefield value is comparable to those found in Arthedain or Cardolan. They are not, however, very numerous, and this places a serious obstacle to the Rhudaurian king. The Daen and Hillman masses cannot compensate for this lack, and Northman mercenaries are therefore the most important part of the army. Over time, a number of them settle in Rhudaur and form a group similar to the Faerdorian Northmen of Cardolan.

Tactics

Divergent fighting styles, derived from the multi-ethnic character of the Rhudaurian army, poses a great problem for any king or general trying to lead that army successfully. Even the Daen and their Hillmen relatives differ in their martial traditions. For the former, war is more or less a decision between champions, while the latter try to overwhelm a foe with superior numbers or break an enemy's ranks by a massive initial charge.[17]

The principal tactics of the Rhudaurian infantry would be to hold their ground in the center while cavalry (knights and mounted mercenaries) maneuvered on the flanks to strike the decisive blow. Northman mercenaries might serve in either capacity (i.e., infantry or cavalry).[18]

To get an impression of how a more advanced and better equipped realm makes war on a less rich region, the Welsh and Scottish wars of Edward I of England might be of help. Indeed, the Hillmen seem to have been borrowed partly from the Scots, so the comparison seems not too far-fetched.[19]

Other Time Periods

During the first four centuries of its existence, Rhudaur remained the weakest of the Dúnadan successor states. Its populace (and Dúnedain!) envied their contemporaries in richer Arthedain and Cardolan. Until the rise of Angmar, nothing could be done about this, as Rhudaur could not hope to array an army reasonably capable of rivaling an Arthadan or Cardolanian force.[20]

With the rise of Angmar at the end of the 13th and the beginning of the 14th century, all this changed. This new realm engaged in cautious diplomacy with its southerly neighbor, giving lip-service to Rhudaur's ultimate suzerainty, while proposing an alliance of mutual benefit to both realms. The reduction of Arthedain and Cardolan's territory so that Rhudaur and Angmar could enjoy their fair share of Eriador's riches was the ostensible goal of this pact. Hungry for power and eager to best their more powerful cousins, the remaining Dúnedain of Rhudaur agreed to the alli-

Knights
Typical Arms: longsword (macil),* lance, *mace, shortsword (eket), bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves, shield (various types)

Men-at-Arms
Typical Arms: longsword (macil),* lance, *mace, shortsword (eket), bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens, plate vambraces, plate greaves

Mercenary (cavalry)
Typical Arms: broadsword, thrusting spear, bow
Typical Armor: helm, chain habergeon or kurbul (hard leather) cuirass with qilt gambeson, kurbul (hard leather) greaves, various shields

Mercenary (infantry)
Typical Arms: shortsword, dagger, handaxe, spear, broadsword
Typical Armor: half helm, scale habergeon or kurbul (hard leather) cuirass with qilt gambeson or leather tunic

Hillmen
Typical Arms: spear (*creg*),, javelin, dagger
Typical Armor: leather tunic

Daen tribal warriors
Typical Arms: spear, *weeb*, shortsword
Typical Armor: leather tunic, kurbul cuirasss

Militia
Typical Arms: spear, dagger
Typical Armor: leather tunic or kurbul cuirass

An asterisk (*) designates a "chivalric" weapon reserved for knights. The right to wield these might be granted to non-knights by specific leave of a lord. This holds true, of course, only as long as there is a functioning "feudal" society in Rhudaur.

ance, thereby helping to secure the still vulnerable northern realm in its first decades.

Failure to recognize the nature of Angmar and the danger posed by it should be one of the key historical mistakes of the Arnorian Dúnedain.[21] Rhudaur and Angmar first showed their power in the middle of the 14th century, when the allied realms resisted the Arthadan king's claim to the overlordship of former Arnor and made war on him. With help from Cardolan, Arthedain defeated the allies for a while.

The last Dúnedain of Rhudaur, finally seeing through the mask of Angmar, were slain or had fled the realm by the beginning of the 15th century, leaving the land to their former subjects. From this time onward, the quality of Rhudaur's military declined even faster, as the former Dúnadan, Northman and Enedon soldiery was replaced more and more by an ethnic mix of Hillmen, Daen, Easterlings, and even Orcs.

The military figures for 1640 no longer include any Dúnedain. They also reflect a population shift, as the majority of reliable people settle along the Mitheithel (mostly in the vicinity of Cameth Brin),[22] so that they may be mustered relatively quickly.[23] At this time, the realm is even more torn among several factions than in 1400.[24]

After 1640, central leadership in Rhudaur quickly disintegrates. Rogrog's War against the Hillmen in the second half of the 17th century especially devastated Rhudaur. In this war, the Hillmen could have fielded troop strengths similar to those of 1640.

Notes

1. Examples of sorcery can be found in LotR (e.g., the Witch-king at the Ford of Bruinen or before the gate of Minas Tirith).
2. The use of Rhudaurian sorcery offers great possibilities for campaigning, especially if you use my own rules (MEGS) with a new magic system http://www.mordor.ch/ tolwen) that encompasses a Dúnadan "magic society" that is the sworn enemy of "dark sorcery."
3. The numbers for 1200 have been extrapolated from data provided by the essay on Eriadorian population and urbanization.
4. See discussion of mercenaries on p. xx.
5. Ca. 20% males and 15% females, due to the tradition of female warriors (UT.377, 384).
6. Intermarriage with Hillmen or Daen may similarly have accelerated their loss of racial and cultural distinctiveness.
7. As a typical medieval knight.
8. See discussion on p. 6.
9. By 1400 this trend should be obvious. In earlier times, the Dúnedain would have more influence in the upper echelons of society.
10. The Hillmen are not included because of their semi-autonomous state.
11. The numbers for 1200 have been included for reference. They represent a period in which the major demographic trends of Rhudaur are still relatively intact, but in which Dúnadan numbers have already suffered heavy decline.
12. The causes for this are discussed on p. xx above. The numbers for 1640 are double this ratio because the king can now control his shrunken land and lords much better (those being located more closely to Cameth Brin).

13. The actual number depends largely on the personality of the *targ-arm*. An average chieftain might raise 1/5th of the potential for campaigning.
14. It seems reasonable to assume that the Hillmen were disinclined to campaigning far from their homeland.
15. Rhudaur's geographical proximity to Angmar also prevents the Witch-king from having to import large sums of foreign silver, which would invite unwanted attention to his strategic links with the East.
16. This heavy use of Northman mercenaries is mentioned in ICE's adventure module *Dark Mage of Rhudaur* and, in fact, is pivotal to its plot. Since these Rhovanic Northmen resemble Germanic people quite well, cultural traits and military style of the Germanic tribes can be used for modeling the Northmen (as already done by ICE). For a good description of such "Germanic" warriors, see Part V below.
17. In A:TP.96, the unreliability of the Daen and Hillmen in a real campaign and pitched battles is stressed. As ICE built the Daen culture on Celtic models, MAA 158 can provide a good view of the Daen military. I propose using the late Halstatt or early La Tène period as the prime model for mid-TA Daen people.
18. Germanic warriors of the migration period could fight either mounted or on foot. Only the Ehwathrumi, with their horse-centered culture, would operate exclusively as (superior) cavalry.
19. Though these are a far more advanced and settled society with stone structures and castles. A good description of this struggle can be found in MAA 94.
20. There might have been exceptions, of course.
21. Tolkien reports these events in RotK.320.
22. As detailed in A:TP.96, the best troops (a small feudal contingent) are garrisoned under the command of the king at Cameth Brin, while less reliable units are stationed elsewhere.
23. Remember that we are still talking of a mostly feudal or even tribal culture, where full-time soldiers make up only a fraction of the campaign army.
24. A good description of a realm with similar problems can be found in Columbia Games' *Rethem* module. Although this state enjoys a more advanced culture, some general factors are similar (such as a "barbarian" culture on the fringe which potentially threatens the realm). In Rhudaur as well as in Rethem, the barbarians for a time form the ruling elite. Beside the parallels, *Rethem* (as the other CG kingdom modules) contains excellent plans of castles and pertinent data for use in a RPG.

PART IV: ANGMAR

> For at that time the realm of Angmar arose in the North beyond the Ettenmoors. Its lands lay on both sides of the Mountains, and there were gathered many evil men, and Orcs, and other fell creatures. (RotK.320)

This quote sets the scene for Angmar, the realm of the Witch-king, in its quest to destroy the northern Dúnedain. Of course, we have to bear in mind that the passage is seen from a Dúnadan point of view (with the advantage of hindsight) and the "evil men" are evil because they serve Angmar and are opposed to the Dúnedain. Most probably, they would be seen much more positively by most of their other Mannish contemporaries, since they were not subject to the often haughty Dúnedain.[1]

Angmar, the centuries-old antagonist of the Dúnadan successor states of Eriador, is among the most fascinating and interesting realms of northwestern Middle-earth. Its existence ensures a constant state of strife and danger in Eriador and, in this way, offers great possibilities for adventuring and intrigue (in contrast to the relatively secure and stable Gondor).

Angmar has already been addressed in the ICE module of the same name, but unfortunately this publication remains unsatisfactory in many ways. For example, the discussion of military topics lack believable and detailed explanations of the civil society and its accompanying military organization. This essay strives to rectify at least the military aspect of these omissions and present a concise and re-enactable model for the armed forces serving the Witch-king. Because so many aspects of ICE's Angmar are in need of revision, it is often hard to stick to strictly military matters, so please be patient if I digress.

The temporal focus of this essay is the standard 1640 MERP setting, though the information provided can be used for nearly all periods of Angmar's existence with only minimal modification. Normally we would expect some change in a realm that existed for 700 years, but the example of Arnor (which seems nearly unchanging during its period of unity) provides a convenient precedent for the unusually long persistence of a society through time.

Because he is both undying and undisputed as master of Angmar, the Witch-king is capable of artificially maintaining political continuity.[2] An efficient system is needed to exploit the meager resources of his realm, and feudalism seems the best solution.[3] The Nazgûl-lord takes care that this system remains nearly unchanged throughout his realm's existence.

Definitions

The following features distinguish the military personnel of Angmar from the Arthadan model presented on p. xx above.

- **Knight:** Though inferior in equipment and quality to his Arthadan or Cardolanian contemporaries, the typical Angmarean knight forms the core of the heavy cavalry forces. A few act as commanders of other troop types.
- **Militia:** Unlike Arthedain, unfree serfs as well as free tenants exist in Angmar (as in medieval Europe). In theory, every man in Angmar is obliged to militia service when his lord issues a call to arms for a campaign. Generally, the combat value of these off-time soldiers is rather low.
- **Yeoman:** In Angmar, normally the highest position attainable by commoners. They are usually classified as light or medium infantry with varying equipment (although wealthy yeomen might be classified as light cavalry).

Ethnic Composition

Throughout the period of Angmar's existence, Sauron is still very weak and strives at all costs to avoid any action that might betray his return. The perception of Angmar as an evil realm full of powerful sorcerers loyal to the Dark Lord, intent on world domination, would be detrimental to its survival and Sauron's future plans.[4] Therefore, the Witch-king's prime directive is to conceal all connections with the Necromancer, presenting Angmar instead as "just another Mannish realm" combating the Dúnadan successor states for power and influence in Eriador.

In order to effect this deception, the Witch-king's minions from the beginning have propagated a campaign to establish a realm on behalf of all who have been wronged by the "haughty Dúnedain," so that they might avenge themselves for "injustices" suffered under the Tall Men of the West. In this manner, Angmar's militancy and aggressiveness, far from signaling a return of the Shadow, would offer the prospect of booty and honor for all men who proved themselves capable.

Thus, Angmar initially depended for its manpower upon massive immigration by a wide variety of races. This interpretation follows Tolkien's portrayal of Sauron and Saruman as "reformers" and "modern" minds in contrast to the conservative Elven and Dúnadan lords of old. The amalgam of many ethnicities would meld into a cohesive people, the "Angmarrim," after perhaps a century or two. To these Men, life is harsh, but those who prove themselves can expect advancement in status and because their lords care reasonably well for their people,[5] making a bogeyman out of the Dúnadan realms.[6]

The *Angmar* module unfortunately lacks good information on the population numbers as well as social organization. Due to the supposedly unfriendly climate and poor soil of Angmar, the realm is very unlikely to harbor a large population. Feudal organization, in which people live off their own land as potential soldiers while the land-owning lords form a military elite, is far more plausible than an imperial, economically unproductive, full-time soldiery that has to be supplied on top of a civilian population. The meager resources of Angmar make an economic use of the latter mandatory.[7]

Alternatively, Angmar might be construed as a military state with slaves to tend the fields and a small warrior caste. This would be more problematic, however, since such an arrangement generates the added danger of slave-revolts (not to mention making Angmar seem even more "Sauronic" to Dúnedain and Elves). A realm of self-motivated subjects is far more suited to the Witch-king's needs than an oppressive slave-state.

Remember that before the founding of Angmar this region was an extremely lightly populated border march. It must have took the Witch-king several decades to fully establish a sizable population. This could have been achieved through massive immigration, but a high birthrate would have been needed as well. All this is much more feasible when people act on their own (relatively) free will rather than under duress. So it seems likely that the Witch-king founded Angmar by subtly manipulated several Mannish groups to serve him.

These groups would have included:

- all inhabitants of the Westlands who were dissatisfied (for whatever reason) with Dúnadan rule and who would have seen their fortune in a new realm without Dúnadan overlords
- people from the East willing to seek their fortune in a foreign land (due to overpopulation, religious persecution, advantageous taxation, etc. in their own). A subtle cooperation among major Sauronic leaders (e.g., the various Nazgûl) could have taken place to generate such conditions.[8]

The numbers presented below, taken from the essay on Eriadorian population, form the basis of the calculations for the Angmarean military. One has to remember, though, that a substantial part of the realm lies east of the Misty Mountains, where the Estaravi farm Angmar's breadbasket. These Northmen are not feudally organized, but act as close allies of Angmar within their traditional individualistic lifestyle.

Angmar total	**western area**	**eastern area**[9]
77.700 km^2	69.700 km^2	8.000 km^2

The following demographic data are assumed for the Estaravi:

Time	**wild**	**waste**	**yield**	**density**	**urban**	**population**
TA 1400	0,40	0,20	1,15	20,00	0,05	92.700
TA 1640	0,50	0,20	1,10	20,00	0,05	*73.900*
TA 1974	0,35	0,20	1,00	25,00	0,05	109.200

The next table presents a breakdown of Angmar's total population during various periods.

	population figures		
Time Period	Western	Eastern	total
TA 1400	505.900	92.700	598.600
TA 1640	325.200	*73.900*	399.100
TA 1974	551.600	109.200	660.800

For the small-scale harassment of Arthedain, Angmar relies mostly on indigenous forces. Only when a major campaign is being planned are massive numbers of Men from the East imported (plus tributary Orcs).[10] After a campaign, most of the survivors return home. Some, however, remain, thereby replenishing Angmar's losses. These short-term auxiliaries are generally of two kinds:

- **Mercenaries:** Rhovanic mercenaries would mostly be Easterlings,[11] but a few unscrupulous Northmen shouldn't be above accepting Angmar's pay as well.[12]
- **Crusaders:** The realm of Mistrand on the Inland Sea of Rhûn organizes great trecks of warriors to fight the hated Dúnedain.

Size

A breakdown of military personnel per number of inhabitants.[13] The following table compares the breakdowns for Arthedain and Angmar:

Country	knights	men-at-arms	yeomen	militia
Arthedain	1/180	1/120	1/50	1/5

That the numbers for Angmar should reflect a higher percentage of military personnel is quite reasonable when we consider the Witch-king's military goals. The Estaravi, like other Rhovanic Northmen, are supposed to resemble a "Germanic" people. Their chieftains should therefore possess a small body of full-time soldiers as personal guards. Additionally, every able-bodied male is theoretically eligible (and equipped) to lend military service in times of need. Therefore, a percentage of 2% for full-time soldiers and an additional 20% for the full levy might be reasonable.[14]

To these numbers must be added the Orcs of Angmar. Orcs have been kept out of the population equation because their subterranean mode of subsistence is entirely different from and independent of the agrarian basis used for calculating Angmar's Mannish population. The next table incorporates this Orkish component into the potential strength of the total Angmarean army.

As detailed in the *Angmar* module, a great part of the Witch-king's army is arrayed along the Arthadan frontier—in the first line the Orc-tribes in subterranean warrens,[15] behind them and the No-man's Lands, the Men in economically self-sufficient manors. This settlement pattern serves both to harass the Dúnedain in Arthedain and Cardolan, and to ease the burden of provisioning (which would strain Angmar's food resources even more).

The combined troop strength of the Orc-tribes of the frontier is listed under "Border tribes." Because of their dispersed lifestyle, these tribes have been less hit by the Plague than their comrades in Angmar's crowded dens. Therefore, their 1640 numbers are not as low when compared with those of 1400 and 1974; in contrast to the Orcs of Angmar proper ("Angmar Tribes").[16] These numbers are supplemented by troop contingents from allied and subject regions like Goblin-gate and Gundabad ("Tributary Tribes").

Having reviewed their potential strength, how many troops would the Witch-king actually be able to raise? The next table suggests Angmar's campaigning power during the time periods discussed. The 1400 numbers represent the army that tried to defeat Arthedain and Cardolan in one fell swoop. The 1640 numbers are hypothetical, since no major campaign was planned or prepared at that time.[17] The 1974 numbers show Angmar's military peak strength when the host of the Nazgûl-lord finally broke Arthedain.

In terms of raising feudal contingents, the Witch-king has the advantage of an absence of dispute over feudal obligations. If he calls to arms, the specified number of lords march to battle (or else they will experience a very unpleasant fate). Therefore, the Angmarean campaign army contains a much greater proportion of the potential strength than is common or possible in the armies of most of its enemies. In a major campaign, roughly 75% of the core army (knights, men-at-arms, yeomen, Estaravi warriors and Orcs) goes to war, while the rest (mostly the younger and older warriors) guard Angmar. Even a substantial number of militia is called to campaign in far-away Arthedain (ca. 15%).

But the Witch-king knows that he cannot take everyone. The logistics of supplying a medieval-style army in winter on a relative barren landscape (the No-Man's Lands, which were made so by Angmar itself) simply do not permit this. This contingency places a maximum limit on the size of the Angmarean army, even if the Witch-king were capable of raising more troops.[18]

The number of mercenaries and crusaders for a major campaign is difficult to estimate, but in my opinion should range between 25,000 and 35,000. The amount of supplies needed to feed and maintain them is so great, however, that the Witch-king requires many years or even decades to build up the necessary stores and infrastructure. So these troops are only brought to Angmar immediately before a campaign.[19]

All in all, we see that for a major campaign the Witch-king should be able to assemble a massive host, but the diversity of its contingents renders it difficult to control and maintain for extended periods of time. The Orcs are especially prone to declining discipline over a long campaign or when the odds are against them. So, despite his numerical advantage over Arthedain, the Nazgûl-lord cannot simply overrun Arthedain with sheer numbers.

POTENTIAL ANGMAREAN MILITARY STRENGTH

Troop type	TA 1400	TA 1640	TA 1974
Men			
Knights	2.660	1.710	2.900
Men-At-Arms	5.620	3.610	6.130
Yeomen	9.200	5.900	10.000
Militia	93.400	60.040	101.830
Estaravi warriors	1.900	1.500	2.190
Estaravi levy	18.540	14.780	21.840
Mercenaries & Crusaders	n/a	n/a	n/a
Men total	131.320	87.540	144.890
Orcs			
Border tribes	17.500	12.510	20.000
Angmar tribes	12.000	6.900	15.000
Tributary tribes	8.000	6.000	10.000
Orcs total	37.500	25.410	45.000
Army total	**168.820**	**112.950**	**189.890**

ACTUAL ANGMAREAN MILITARY STRENGTH			
Troop type	**TA 1400**	**TA 1640**	**TA 1974**
Men			
Knights	2.000	1.280	2.175
Men-At-Arms	4.215	2.710	4.600
Yeomen	6.900	4.425	7.500
Militia	14.010	9.000	15.280
Estaravi warriors	1.900	1.500	2.190
Estaravi levy	2.780	2.200	3.300
Mercenaries & Crusaders	25.000	17.500	35.000
Men total	56.805	38.615	70.045
Orcs			
Border tribes	13.125	9.400	15.000
Angmar tribes	9.000	5.200	11.250
Tributary tribes	6.000	4.500	7.500
Orcs total	28.125	19.100	33.750
Army total	**84.930**	**57.715**	**103.795**

Whenever Angmar invades Arthadan territory, the Dúnedain strive to prevent the Angmarrim from foraging. When they cannot hide or defend their supplies, many of these are destroyed. In this way, a campaign (such as those of 1409, 1851 or 1974) places the highest logistical demands on Angmar. Even when solved, these problems are a perpetual nightmare and gamble for the Witch-king's host. With medieval technology, a supply train for such a host is very vulnerable (if it succeeds in working properly at all).

Given Arthedain's overall qualitative and (in peacetime) quantitative superiority, Angmar could not hope to win an open war against the Dúnedain. This might be one of the factors that led the Witch-king to the decision to wear down Arthedain by an ongoing, small-scale war of attrition—both in body and soul.

Tactics

When campaigning, Angmar does not generally restrict its warhost to (semi-)professional contingents alone, but also deploys a substantial number of militia.[20] The latter are mostly used for foraging and provisioning the core of the army by scouting the countryside. Another reason for Angmar's tendency to wage winter campaigns is the fact that its farmers are more readily available for military service after the harvesting season that is so vital for the realm's survival.

Since the Estaravi resemble Germanic tribesmen, their battle tactics might also be comparable. The settled Estaravi favor an individualistic fighting style without great regard for discipline or refined tactics. Nor do they limit their expertise to a particular mode of warfare, so that they can fight either mounted or on foot, according to the needs and wealth of the individual warrior. The small body of the chieftain's guards would be more professional, though their basic tactics would remain the same.[21]

The mercenaries and crusaders among Angmar's troops should, to a large degree, be horse-nomads, and must be counted among the Witch-king's best warriors. When properly deployed using their preferred fighting style, these troops are extremely deadly. Good discipline, careful reconnaissance and skillful horse-archery, coupled with a deadly feigned retreat which lures the enemy from its strong position, are a valuable asset in Angmar's favor.[22]

In terms of offensive capability, then, it is always difficult for Angmar's lords to take advantage of their diverse contingents as cohesive fighting force, and this may help to account for Angmar's many defeats. On the defensive side, however, Angmar is able to survive because the Witch-king has undertaken several measures to protect his realm.

One of the Witch-king's first ventures after his realm's foundation was the creation of a buffer zone against Arthedain. All settlements in the region were systematically destroyed and any attempt to re-settle them quenched. This action created the No-man's Lands, a major logistical obstacle for an army attempting to cross it.

The Witch-king also erected a number of smaller fortresses and castles just behind the No-man's Lands sufficient to deter any attack by Arthedain and/or Cardolan.[23] Because this frontier zone is also the primary area of settlement, it bristles with manors and inhabitants willing to defend their realm against the Dúnedain and their allies.

The first decades of Angmar's existence were the most dangerous for the fledgling realm. It is only natural that a once barren region could not be populated by several hundred thousand people overnight.[24] Even if we allow several decades for the establishment of a functioning and self-sustaining economy, large immigrations must have been a normal occurrence for many years. The first war against the Dúnedain must be understood against this background.

The new realm was only a junior partner when it lent aid to Rhudaur in its defiance of Arveleg's claim to the kingship of Arnor in 1349, so the Dúnedain saw in Angmar only a new, weak ally of Rhudaur.[25] Of course, this was just the way the Witch-king wanted it. When he reduced Rhudaur to a puppet state, shattered Cardolan beyond recovery and nearly destroyed Arthedain in the course of the Second Northern War, it was too late for the Dúnedain to realize their mistake—Angmar had firmly entrenched itself in the North.

Chronology

At first glance, it may seem a bit strange that Angmar, with its supposedly vast armies (at least in ICE's interpretation), took seven centuries to defeat the disunited northern Dúnedain. Yet, as has been shown above, Angmar was far from omnipotent. The most important campaigns and machinations of Angmar are summarized below.

The First Northern War (TA 1356)

In this war, Angmar shows itself for the first time as an enemy of the Dúnadan successor realms. For the time being, it poses as a junior partner of Rhudaur, waging war against Arthedain's claims of sovereignty over former Arnor. Through careful diplomacy and

bribery, Cardolan remains initially neutral (partly because the Witch-king restrains himself by not using Orcs in the conflict).

The numbers employed in this war remain average on all sides. With the death on the battlefield of Arveleg I of Arthedain, Cardolan finally enters the fray against Rhudaur/Angmar and the troops of the Witch-king are forced to retreat. The Angmarrim learned many tactical lessons from their defeat in this summer, and for the next major conflict (1409)—which would be on a much grander scale—the Witch-king adopted a new strategy.

The Second Northern War (TA 1409)

Prior to this great conflict, Angmar carefully prepared its positions in Rhudaur and along the frontier with Arthedain and Cardolan.[26] In past decades, Angmar had only waged small-scale summer campaigns (mainly as an ally of Rhudaur) which usually resulted in swift defeat. Now the Witch-king was planning a winter attack, but the thought of such a thing never crossed the minds of the Dúnedain (who mistook the Angmarean movements as preparations for a really big summer campaign).

Once unleashed, the Dúnedain were expecting an average-sized army at most, and accordingly failed to mobilize adequate forces. The main goal of this attack was the decimation Cardolan. Therefore, when a battle ensued at Amon Sûl and the defeated Dúnadan armies retreated (Arthedain's northwestward, Cardolan's westward), Angmar's main attention fell upon the latter (together with newly arrived reinforcements), annihilating them amid the Barrow-downs.

When Angmar's main army again turned against Arthedain, the Dúnedain had rallied their forces, organizing a serious defense. A number of battles were fought around Fornost, the Angmarrim slowly gaining the upper hand, but then Elves from Lindon and Rivendell attacked the Angmarrim in the rear, cutting off their supply lines and encircling the Nazgûl-lord's army. Shortly thereafter, the host of Angmar was utterly defeated, though Cardolan was broken.

The Great Plague (TA 1636)

Though not a military conflict, the Plague severely affected the northern Dúnedain's strength. Unfortunately for the Witch-king, though, his own realm suffered even more, and so the next major conflict against Arthedain was delayed for almost two centuries. The Barrow-wights who occupied the Barrow-downs were a great spiritual victory for Angmar.

The Hillman Revolt & Rogrog's War (TA 1645-1698)

As the stubborn Hillmen had once resisted Dúnadan lordship and had later helped the Witch-king defeat them; now, having perceived what they had bargained, they revolted against Angmar's growing demands for service and subordination. Owing to the Plague, this war strained Angmar's depleted resources considerably. The Hillmen, knowing their own country, waged a tenacious guerrilla war, and had to be exterminated tribe by tribe, after many Angmarean defeats and the use of massive reinforcements from the Ironhome. The revolt was finally crushed, and the few surviving Hillmen fled their homeland and were assimilated to their numerous Daen cousins in the South.

The Third Northern War (TA 1851)

As reported in *The Peoples of Middle-earth*, another major war was fought by Angmar and Arthedain in 1851. The campaign strength for this period may be assumed to equal that of 1400. Though Angmar gained no strategic surprise (Arthedain being well-prepared for a winter campaign), Cardolan was no more and Arthedain with its dwindling numbers stood alone.

King Araval and his lords turned out be quite capable commanders, able to outmaneuver and pin down the Angmareans in a very unfortunate position. Once again, the Dúnedain received help from Lindon and Rivendell which finally tipped the scales in their favor. Despite the numerical odds, the Dúnedain and their allies defeated their foes.

This campaign demonstrated the superiority of Dúnadan equipment, tactics and overall quality over the Witch-king's hordes (once adequately trained, prepared and equipped for the exact kind of campaign to be fought). Defeat drove the Witch-king to seek other ways of offsetting these advantages. This led to the development of the more deadly Banes of Angmar, which he introduced in the following decades. The Red Flux reached Arthedain in the 1890s, while the first wave of the Bloodeye Ravish swept through Arthedain's equine herds in the 1960s.

The Fourth Northern War (TA 1974)

Prior to its final campaign, Angmar assailed Arthedain in a series of minor forays, each wave wearing down the defenders' spirit a bit more, while at the same time keeping the Angmarrim apprised of new Dúnadan defensive tactics.

The greatest host ever to emerge from the Ironhome poured out of Angmar in the winter of 1974, bent on crushing Arthedain once and for all.[27] King Arvedui arrayed his forces on the North Downs, seemingly intent on holding his core lands with their great resources. In a series of battles, the Arthedain were able to repulse the Angmarrim temporarily.

Finally, after some maneuvering, and having assembled nearly all his forces, the Witch-king succeeded in overwhelming the desperate defenders. A great and fierce battle was fought on the North Downs in which the Dúnadan army was utterly annihilated. The king, however, was able to flee from the battlefield with a small retinue of loyal lords and knights.[28]

The battle nonetheless left its mark on the Angmarean army, and a great part of the Witch-king's best troops lay dead or crippled on the field. Complete victory was also delayed by the stout defense of Fornost Erain, which long preoccupied Angmarean forces. Turning toward the rest of Arthedain, the Angmarrim discovered that many of its people had already fled westward—Arvedui's brave defense had bought many of his people time to escape.

Following his triumph, the Witch-king summoned even more troops (some with their families) from Angmar, leaving behind only skeleton garrisons. This he did to reinforce his army for the coming conflict with the Gondorian expeditionary force and its allies,[29] as well as to settle Arthedain with his own people.

The Witch-king himself was forced to winter in Arthedain, making the problem of provisioning of his many people acute. Some supplies had been destroyed in the war, while others had been removed; the rest was quickly consumed by his hordes. So, in the spring of 1975, the logistic situation of his army had become critical, leading to severe disciplinary problems among the second-rate troop reinforcements from Angmar.

The Nazgûl's machinations were of no avail. Even his strengthened force was utterly defeated that spring in the battle of Fornost. The avenging Dúnedain, beholding the devastation of their land and families, knew no mercy and massacred every last enemy.[30] In this manner, the whole host of Angmar, including non-combatants and camp-followers, fell dead on the battlefield.

When news of the disaster reached Angmar, an extremely bloody civil war broke out between the remaining Men and Orcs for the last supplies.[31] When the Gondorians appeared before the Angmarean fortresses, they met small resistance from the victors of this conflict (whom they quickly dispatched) and were able to dismantle the castles beyond repair in relatively little time. So even after finally defeating Arthedain, Angmar was utterly thrown down as well.

Arms and Armor

The following table gives an overview of the typical arms and armor used by the troops mentioned in this essay. It must be stressed that these are not strict rules, and the individual equipment may (and will) vary drastically due to personal wealth, availability, etc.[33]

Knights
Typical Arms: longsword *, lance*, mace, shortsword, bow (horseback)
Typical Armor: helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens

Men-at-Arms
Typical Arms: longsword*, lance*, mace, shortsword, bow (horseback)
Typical Armor: great helm, chain cowl, chain hauberk (long) with quilt gambeson, chain leggings, chain mittens

Yeomen
Typical Arms: halberd, shortsword, dagger, handaxe, mace, spear
Typical Armor: half helm, chain or scale habergeon or kurbul (hard leather) cuirass with qilt gambeson

Militia
Typical Arms: spear, dagger, shortsword
Typical Armor: leather tunic or kurbul cuirass

Orcs
Typical Arms: spear, scimitar, handaxe
Typical Armor: chain shirt, kurbul cuirass, scale habergeon

Mercenary (infantry)
Typical Arms: spear, broasword, handaxe
Typical Armor: kurbul cuirass, scale habergeon, chain hauberk (short)

Nomads
Typical Arms: spear, longsword, bow
Typical Armor: kurbul cuirass with quilt gambeson

An asterisk (*) designates a "chivalric" weapon reserved for knights. The right to wield these might be granted to non-knights by specific leave of a lord.

Angmar in MERP

Having evaluated what might reasonably be expected of a realm like Angmar, let's see how ICE has handled these topics.

Unfortunately, the *Angmar* module even in itself is inconsistent. On one occasion (TA 1634) the Witch-king fields a standing army of 15,000 men, while another reference tells of 4,000 permanent troops.[33] To confuse things even more, according to A:TP.97, the Witch-king has an army (Orcs and Men) of ca. 45,000 available at all times. For a major campaign, these may be further strengthened by two or three times that number in auxiliaries.

So in essence, beside the inconsistencies among the various ICE publications, Angmar is supposed to field a maximum army of ca. 150,000 troops! I think these numbers are vastly exaggerated for the period of the 1640s, the supposed temporal focus of the book.[34]

In sum, ICE's treatment of Angmarean military and social organization is insufficient to explain Tolkien's portrayal of the conflict between the Arnorian successor states and the Witch-king's realm.

Throughout the *Angmar* module, one gets the impression that the realm was an empire with a large professional army commanded by paid officers, a central bureaucracy, etc.[35] In light of my own analysis, the generals and masters of Angmar (the Angúlion, Dairkan, Ulrac, etc.) should be re-conceived as feudal lords, comparable to the tenants-in-chief of Arthedain, their power based not on an assigned command (as in a modern army) but on the feudal obligations of their vassals.[36] This modification would better represent the means by which political and military power is preserved in a state suited to Angmar's situation.

All in all, Angmar might be the closest northwestern Endorian equivalent of a European medieval realm. Feudalism and serfdom (unfree peasants), coupled with ruthless manners, are likely to be

found in Angmar. In contrast, the Dúnadan realms are so "good" that they seem like idealized societies.

The Witch-king is the absolute and undisputed master of his realm. Below him, however, the normal political power play and intrigue should flourish to a certain degree. In this way, the Nazgûl assures that only the best and fittest retain the highest ranks, while still preventing intrigue from damaging Angmar's strength.[37] Only when a campaign against the Dúnedain is being prepared would no insubordination or intrigue be tolerated.

Other Time Periods

Before the founding of the Witch-realm, Angmar is an underdeveloped frontier region with a scattered population of nomads, trappers and the like, playing no role in Eriadorian politics. After the Witch-king's defeat and his realm's subsequent destruction in the years following 1975, Angmar reverted to this former state. The unfortunate climate curtailed Mannish settlement, so that a few decades after the western troops left, Orcs began to spread in the region again.[38]

Notes

1. This point of Angmar as "just another mannish realm" is explained and detailed further below.
2. Unlike real-world, mortal rulers, the Witch-king has the advantage of great personal power coupled with serial immortality, which eliminates the problem of weak or even incompetent successors. Thus, he is able to counter all the problems of fragmentation and insubordination that "normal" Mannish rulers face in real history, and maintains his "ideal" state.
3. Although feudal organization in Angmar would to some degree be an artificial imposition (rather than something which evolved over many centuries, as in the Dúnadan realms or medieval Europe), the Witch-king would nevertheless enjoy a number of advantages over normal feudal authorities. Due to his personal power and longevity, the Nazgûl is immune to the usual problems experienced by feudal states (rebellious lords, incompetent successors, disintegrating central authority). In this sense, both Arthedain and Angmar are atypical feudal societies. See p. xx for a discussion of the exceptional character of Arthedain's feudalism. In Angmar, feudalism works because its strong and ruthless king is a terrifying, immortal creature capable of efficiently reprimanding or disposing of potential troublemakers, thereby ensuring the strength and permanence of central authority.
4. In MERP, we find more or less constant communication between Angmar and Dol Guldur. As has been pointed out before, if the Wise were convinced of a return of Sauron at this time, they surely would assemble their forces and attack Dol Guldur and Angmar. In the mid-Third Age, Sauron is too weak to oppose them and is in real danger of being vanquished again. (After all, he's a coward.) To prevent this from happening, Sauron has contrived a ruse: if communication between the two evil citadels is discovered, it is made to look as though Angmar is receiving tribute from Dol Guldur rather than vice-versa, thus reducing the latter's importance and emphasizing the former's superiority.
5. In the way of a medieval realm. Medieval European rulers were generally not known for their care of the general population. The Witch-king needs reasonably motivated people. Therefore the regime is less oppressive than we would expect from a realm where a Nazgûl rules. The Witch-king's hand is felt, but the people accept it as necessary to defeat the enemy and survive in a harsh land.
6. This necessitates a re-interpretation of Angmar from an oppressive police-state obviously in the service of a powerful evil entity to a realm where the influence of evil is not so obvious, more subtle and intent on manipulating people than forcing them in a certain direction.
7. In general, only realms wealthy in terms of money as well as general economic resources can afford a professional army.
8. Ûvatha, ruling Khand and its adjacent territories (through vassal leaders), might have persecuted certain ethnic elements, thus encouraging dissatisfaction and social friction. Revolt against the powerful Variag regime would not have been an option, but then news might reach the persecuted of a state in the northwest willing to accept immigrants and promising benefits for new settlers. In this way, immigration would appear to potential Dúnadan spies and other observers as a natural process, and the new Angmarrim would come of their own will, motivated to work and fight for this king who offers them refuge and a new home.
9. The following borders are assumed for Angmar's eastern territories: from the Grey Mountains, down the Greylin to its confluence with the Langwell, straight to the Misty Mountains, and along the mountain chain back to the source of the Greylin (excluding the Gundalok plateau). In this manner, the Estaravi area can easily be measured.
10. A comparison of the number of Angmar's troops with those of Arthedain and Cardolan shows quite clearly that it cannot hope to win a offensive against one of these states (to say nothing of their strength when allied).
11. These short-term auxiliaries would be mostly archetypal horse-nomads from the steppes of Rhovanion and beyond. Information on tactics, equipment and appearance of such people can be found in the Osprey military series. See Part V below.
12. Please remember that to many outsiders (especially in the East) Angmar would be viewed as simply another western power looking for mercenaries that pays with good silver.
13. The numbers for Columbia Games' kingdom of Rethem are of value because of that realm's similar outlook to Angmar (e.g., a long tradition of violence, brutality, worship of dark gods, and a brutal political climate).
14. Excluding the old, the young and the infirm, as well as the "homeguard." This 20% would include nearly all men between the ages of 15 and 55 years. See the essay on population and urbanization about the demographic distribution within an age pyramid.
15. A:TP lists the Orc-tribes stationed along the Arthadan frontier as: Ashkai, Bagronkuz, Durbalag, Faulgurum, Kurkurum,

Lughoth (detailed in OH 31/32), Snagoth, Thrakburzum, Ulogarûm, Uroth-burm, Urughâsh and Uruk-uflag.

16. The *Angmar* module names the following tribes: Larag-môsh, Skuthrugrai, Sulmog-vrás, Thopur-dorashk, Trûpalog, Uruk-kosh, Uruk-lûgât, Zêm-vîshturak. To these named tribes, several smaller ones are attached.
17. However, it does provide data for "normal," ongoing military activities, as well as troop strengths for Rogrog's War in the late 17th century, which wiped out Rhudaur's Hillmen.
18. Even factoring in a percentage of causalities that no not require provisioning all the way, feeding a medieval army in winter is extremely difficult.
19. The immigration of large numbers of mercenaries and crusaders (with their horses) from Mistrand on the southern shore of the Inland Sea must be carefully planned, lest a campaign end in a logistical disaster even before the first battle is fought. Horses in particular require great amounts of food, so that large herds of horses from the East provide another major problem for Angmar's military capabilities.
20. Unlike the Dúnadan realms, which generally use their militia only as a home guard when war reaches their region.
21. A good description of Germanic warriors can be found in WAR 17. As for the Estaravi, their fighting style would be initially individualistic, but as the Third Age progressed they should adopt more organized tactics (as did the Germanic tribes during and after the Germanic migrations).
22. For more specific information on real-world horse nomad tactics and military organization, consult MAA 105 and ELI 30.
23. Knowing them to lack the strength to project their military power across the empty land or sustain sieges against several strong fortresses.
24. The number of inhabitants in Angmar's territory quintupled between its founding around 1280 and the prelude to the Second Northern War. See the essay on Eriadorian population for details.
25. Weak, because of its location in the poor northern region between the mountains.
26. The adventure module *Dark Mage of Rhudaur* is set in this time and provides one of ICE's best campaign hooks in Eriador.
27. See A:TP.31.
28. RotK.321.
29. The remnants of the Arthadan army and the Elves of Lindon and Rivendell.
30. "Then so utterly was Angmar defeated that not a man nor an Orc of that realm remained west of the Mountains (RotK.331)."
31. And the shards of power, their former lords either slain or fled. It is even probable that the Orcs used the defeated men as food. Most of the survivors fled eastward. A number of the Mannish families tried to escape over the frozen landscape (the dreaded "Women's March" reported in A:TP).
32. A good source of information for a medieval realm with military equipment roughly comparable to Angmar's, have a look at MAA 150. It provides excellent text and illustrations that show what Angmarean soldiers and lords might have looked like.
33. pp. 54 and 15 respectively.
34. And even for 1409 or 1974, especially when you consider that Angmar, according to ICE's Angmar book, should have a maximum population of only 250,000 people!
35. Like some kind of "Roman" state.
36. The specific political climate of Angmar should enable them, however, to avert many of the disciplinary problems that medieval kings and emperors often experienced.
37. As in medieval Europe, where insubordination and open defiance of a king or emperor often crippled the central authority's ability to act decisively.
38. Such frontier regions are prime areas for Orcs, lingering on the fringes of civilization and raiding it from time to time. *Unfinished Tales* suggests the interpretation that old Angmar is desolated and only occupied by a few Orc-tribes. When Gandalf tells of the prelude to the quest for Erebor, he talks about Sauron's strategic options in the North: "To resist any force that Sauron might send to regain the northern passes in the mountains and the old lands of Angmar there were only the Dwarves of the Iron Hills... (UT. 322)." This passage implies clearly that Sauron had no influence worth mentioning in Angmar in the decades before the War of the Ring.

PART V: READINGS

Apart from Tolkien's works and the relevant MERP modules, the following readings may be of value for imagining the military forces of Eriador.

Columbia Games

(http://www.columbiagames.com/)

Useful HârnWorld publications include:

- *Chybisa* by N. Robin Crossby, Edwin King, 1987
- *Kaldor*, by N. Robin Crossby et al 1984, 1985*
- *Kanday* by Tom Dalgliesh et al 1986*
- *HârnManor* (This supplement deals with virtually every topic needed to run a manor in a feudal state and it contains tons of information about all factors relevant for the upkeep of such a knightly fief in a RPG for those PCs who might be knighted and awarded a fief of their own. In addition, four fully developed manors are provided as adventure locations.)
- *Hârnmaster Barbarians* by N. Robin Crossby et al 1984, 2000
- *Rethem* by Tom Dalgliesh et al 1985* (the Hârnic realm most similar to Rhudaur and Angmar)

*most of Columbia Games' old "Kingdom Modules" (Kanday, Kaldor, Rethem) are unfortunately out-of-print and can only be obtained from secondhand sources such as the Internet auction E-Bay (http://www.ebay.com/).

Osprey Military Series

(http://www.ospreypublishing.co.uk/)

Another prime source concerning the general topics upon logistics, equipment, tactics, etc. drawn from real-world models for this essay was the Osprey Military series. All volumes are published by Osprey unless otherwise noted.

Men-At-Arms Series (MAA)

No. 50 *Medieval European Armies* by Terence Wise and Gerald Embleton 1975

No. 94 *The Scottish and Welsh Wars 1250-1400* by Christopher Rothero 1989

No. 94 *The Swiss at War 1300-1500* by Douglas Miller and G.A. Embleton, 1979

No. 99 *Medieval Heraldry* by Terence Wise, Richard Hook and William Walker, 1980 Reed International Books

No. 105 *The Mongols* by S.R. Turnbull and Angus McBride, 1980

No. 111 *The Armies of Crécy and Poitiers* by Christopher Rothero 1981 Reed International Books

No. 113 *The Armies of Agincourt* by Christopher Rothero, 1981

No. 136 *Italian Medieval Armies 1300-1500* by David Nicolle and G A Embleton, 1983

No. 144 *Armies of Medieval Burgundy 1364-1477* by Nicholas Michael and G A Embleton 1983 Reed International Books

No. 150 *The Age of Charlemagne* by David Nicolle PhD and Angus McBride, 1984 by Reed International Books

No. 151 *The Scottish and Welsh Wars 1250-1400* by Christopher Rothero, 1984

No. 158 *Rome's Enemies (2): Gallic and British Celts* by Peter Wilcox, 1985

No. 310 *German Medieval Armies 1000-1300* by Christopher Gravett and Graham Turner, 1997 by Reed Books

No. 317 *Henry V and the conquest of France 1416-1453* by Paul Knight and Graham Turner, 1998

Campaign Series (CAM)

No. 7 *Alexander 334-323BC* by John Warry, 1991

No. 9 *Agincourt 1415* by Matthew Bennett, 1991

No. 46 *Lake Peipus 1242* by David Nicolle PhD, 1996 Reed Consumer Books

No. 71 *Crécy 1346* by David Nicolle PhD, 2000

Elite (ELI)

No. 30 *Attila and the Nomad Hordes* by David Nicolle PhD and Angus McBride, 1990 by Reed International Books

Warrior Series (WAR)

No. 11 *English Longbowman 1330-1515* by Clive Bartlett and Gerry Embleton, 1995 by Reed Consumer Books

No. 17 *Germanic Warrior 236-568 AD* by Simon MacDowall and Angus McBride, 1996 by Reed International Books

No. 25 *Italian Militiaman 1260-1392* by David Nicolle and Christa Hook, 1999

No. 30 *Celtic Warrior 300 BC – AD 100* by Stephen Allen and Wayne Reynolds, 2001

Other Readings

The Greek Armies by Peter Connolly, 1977 by Macdonald Educational, London

ACTUAL ARTHADAN CAMPAIGN STRENGTH

Time Period	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	2.800	4.200	10.100	7.300	17.100	24.400
TA 1640	2.100	3.100	7.400	5.400	12.600	18.000
TA 1974	1.250	1.900	4.500	3.250	7.650	10.900

ACTUAL CARDOLANIAN CAMPAIGN STRENGTH

Time Period	Dúnedain	Knights	Men-at-Arms	Yeomen	Militia	Total w/out militia	Total w/militia
TA 1400	**53.600**	**1.490**	**4.650**	**2.100**	**6.700**	**8.240**	**14.940**
TA 1640	9.300	565	1.800	-	2.540	n/a	n/a

RHUDAURIAN CAMPAIGN ARMY STRENGTH (average)

Time Period	Knights	Men-at-Arms	Yeomen	Militia	Daen warriors	Hillmen warriors	Total w/out militia & tribes	Total w/ militia & tribes
TA 1200	135	180	450	1.000	11.000	3.300	765	15.065
TA 1400	130	170	425	935	10.000	3.000	725	13.725
TA 1640	55	75	185	410	7.500	2.800	315	10.615

ACTUAL ANGMAREAN MILITARY STRENGTH

Troop type	TA 1400	TA 1640	TA 1974
Men			
Knights	2.000	1.280	2.175
Men-At-Arms	4.215	2.710	4.600
Yeomen	6.900	4.425	7.500
Militia	14.010	9.000	15.280
Estaravi warriors	1.900	1.500	2.190
Estaravi levy	2.780	2.200	3.300
Mercenaries & Crusaders	25.000	17.500	35.000
Men total	56.805	38.615	70.045
Orcs			
Border tribes	13.125	9.400	15.000
Angmar tribes	9.000	5.200	11.250
Tributary tribes	6.000	4.500	7.500
Orcs total	28.125	19.100	33.750
Army total	**84.930**	**57.715**	**103.795**

OTHER HANDS

The International Journal for Middle-earth Gaming

WWW.OTHERHANDS.COM